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Katherine Connelly

Associate Professor, Department of Computer Science
Co-Director, Center for Law, Ethics and Applied Research in Health Information
Indiana University
Bloomington, IN 47405
(812) 855-0739
connelly@cs.indiana.edu
<http://www.cs.indiana.edu/~connelly>

Research Interests

My research interests are at the intersection of mobile and pervasive computing and healthcare. In particular, I am interested in issues that influence user acceptance of health technologies, such as privacy, integration into one's lifestyle, convenience, and utility. I work with a variety of patient groups, including very sick populations who need help in managing their disease, healthy populations interested in preventative care, and senior citizens looking to remain in their homes for as long as possible. I am looking for a faculty position at an institution that has strong research in both Computer Science and health disciplines. In particular, I am looking for collaborators in Public Health, Nursing, Medicine and Health Informatics.

Education

2003 Ph.D. in Computer Science, University of Illinois, Urbana-Champaign.
1999 M.S. in Computer Science, University of Illinois, Urbana-Champaign.
1995 B.S. in Computer Science, Indiana University, Bloomington.
Letter B.A. in Mathematics, Indiana University, Bloomington.

Work Experience

Associate Professor, Department of Computer Science, Indiana University, 2009-present

Assistant Professor, Department of Computer Science, Indiana University, 2003-2009

Focus on developing pervasive computing applications for health. Current projects include: 1. DIMA: Dietary Intake Monitoring Application, which uses a PDA equipped with a barcode reader to help dialysis patients limit their sodium and fluid intakes to acceptable levels, 2. ETHOS: Ethical Technologies in the Home of Seniors to help them live active, healthy lives in their golden years, 3. Exploring the effectiveness of using cell phones as a platform for health interventions, specifically text messages as a health coach, and 4. Monitoring tools for patients with chronic conditions, which uses a variety of mobile technologies to gather rich datasets to study chronic conditions and assist in identifying triggers of chronic conditions.

Co-Director, Center for Law, Ethics and Applied Research in Health Information, IU 2010-present

One of three co-directors of this \$4M endowed center to investigate the legal, ethical and social implications of health information technologies. Director in charge of coordinating the activities around the applied technologies and their social implications. The Center's web page:
<http://www.clearhealthinfo.iu.edu/>

Senior Associate Director, Center for Applied Cybersecurity Research, IU, 2009-2011

Associate Director, Center for Applied Cybersecurity Research, Indiana University, 2003-2009

Responsibilities included coordinating cybersecurity funding proposals across two IU campuses, interviewing prospective security faculty, organizing a speaker series that brings in nationally-known speakers every month, and developing an undergraduate and graduate security curriculum. The Center's web page: <http://www.cacr.iu.edu>

Research Associate, Pervasive Technology Laboratories - Open Systems Lab, 2001-present

In addition to the Ubicomp research outlined above, responsibilities included coordinating grant proposals and research in the area of health care with two other Pervasive Technology Labs.

Research Assistant and Teaching Assistant, University of Illinois, Urbana-Champaign 1996-2000

Added security to a high performance messaging layer for high-performance computing. Designed and implemented a low-level messaging layer with Quality of Service guarantees for high-performance clusters of computers. Was a Teaching Assistant for an undergraduate Data Structures course.

Teaching Intern, Indiana University South Bend, 1995

Tutored a professor on a PDP-8 hardware lab so that he could teach the course the following semester.

Research Intern, AT&T Bell Laboratories, Murray Hill, NJ 1994

Designed and implemented a digital watermarking program which modified Postscript files using AWK.

Fellowships, Honors and Awards

Young Alumni Award from Indiana University School of Informatics and Computing, 2010.

Trustees Teaching Award from Indiana University, April 2007.

Outstanding Junior Faculty Award from Indiana University, 2006-2007.

Leading Light Award Finalist for Outstanding for Educator in Computing or Engineering, 2006.

CHI Student Design Competition, faculty advisor for student team receiving first place, April 2006.

CRAW Distributed Mentor Program, Faculty Mentor to two undergraduate research students, summer 2006.

CRAW Collaborative Research Environment for Undergraduates, Faculty Mentor for project entitled *Development of a Public UPC/Nutrition Database with a Handheld Device*, 2005-2006.

CRA's Grand Research Challenges Conference on Security, invited attendee, 2003

Mavis Memorial Fund Scholarship, University of Illinois, 2000-2001

American Red Cross Outstanding Service Award, Illini-Prairie Chapter, 2000

Outstanding Graduate Student Service Award, University of Illinois, 1999-2000

Excellent Teaching Assistant Award, University of Illinois, 1998

NSF Graduate Fellowship in Computer Science, 1995-2000.

Phi Beta Kappa, Honor Society, 1995

Research Funding

Grants:

- **SOLACE: Supporting Older Low-ses Adults and their Caregivers Electronically:** NSF Grant IIS-1117860 for \$500,000. This project will explore how to wield technology to enable low-SES, urban- and rural-dwelling older adults to age in place, while simultaneously easing the burden on caregivers. (2011-2014). PI.
- **Center for Law, Ethics and Applied Research in Health Information:** Lilly Foundation for \$4,000,000. This project investigates the legal, ethical and social barriers to using broadly-defined health information in health care delivery. (2010-2014). Co-PI.
- **Older Adults Perceptions of Digital Privacy:** NSF Grant # 0916993 for \$400,000. This project extends our qualitative results from ETHOS to develop and administer a multi-media survey about digital privacy for older adults. (2009-2011). Co-PI
- **ETHOS: Ethical Technologies in the Homes of Seniors:** NSF Grant 0705676 for \$821,491. The ETHOS project is investigating the privacy implications of home-based pervasive computing for enabling independent living in elders. I am the technical PI, responsible for all prototype development. (2007-2010). Co-PI
- **DIMA:** NIH Grant R21 EB007083 for \$416,625. The DIMA project is developing a mobile application that helps dialysis patients monitor their nutritional intake. I am the investigator in charge of the prototype development. (2006-2008). Co-Investigator
- **Research Infrastructure:** NSF RI Grant CNS-0202048 A004 for \$1.3M. The RI grant funded several equipment purchases for my research, including mobile devices, displays and a variety of sensors. (2002-2007). Participant
- **Using stochastic resonance in a game to reduce fear of falling in Older Adults:** \$19,900 from Indiana University's Clinical and Translational Sciences Institute to explore the use of a Wii-fit like balance board game for older adults to improve their balance. (2011-2012). PI.
- **Iterating on a Design for a Low Literacy, Chronically-Ill Population:** \$41,568 from Indiana University's Faculty Research Support Program to extend DIMA to include a portion size selection interface and explore the acceptability of DIMA (designed for a low-literacy population) by a higher-literacy patient population. (2009-2010). Co-PI
- **Visualizing the Digital Trail:** \$50,000 from the Center for Applied Cybersecurity Research to explore data visualizations in the context of data collected to promote health behaviors. (2009-2010). Co-PI
- **International Grand Challenge Community on Ubiquitous Computing:** \$15,000 to support visiting two institutions in the UK for a total of 6 weeks (2008). PI
- **Motorola Research Grant:** \$15,000 to support exploring mobile applications that support health and well being (2008-2009). PI
- **Multidisciplinary Research Opportunity for Women:** \$15,500 to support an undergraduate project that investigates using the wii to support physical, cognitive and social health of elders (2008-2009). Co-PI
- **Outstanding Junior Faculty Award:** \$14,500 to investigate the use of text messaging to support lifestyle changes in college-aged students. (2006-2007). PI

- **Distributed Mentor Program:** \$15,000 to mentor two undergraduate summer research projects relating to my research. (2006). PI
- **Computing Research Experience for Undergraduates:** \$2,500 for two undergraduate students to design and implement a publicly-accessible, UPC/nutrition database. (2005-2006). Co-PI

Educational Grants:

- **Using Robots in the Curriculum:** \$8,000 to integrate robots into mobile computing course (2008-2009). Co-PI
- **National Center for Women in Technology Seed Fund Award:** \$15,000 to redesign a mobile computing course for undergraduates to have a service learning component (2008-2009). PI
- **Service Learning Fellow:** \$1,000 to work on a re-design of mobile computing course to integrate a service learning component. Above two grants came out of this planning grant. (2007-2008). PI
- **Bring IT On! and Bring IT On!: The Sequel:** \$42,000 to host a series of workshops to encourage women an minority undergraduate students to attend graduate school, and to help them design their own K-12 outreach program, modeled on IU's *Just Be*. (2006-2008). Co-PI

Equipment Donations:

- **Motorola:** specialized phone valued at \$1,500 (2008)
- **Intel Research:** 4 research prototypes for activity monitoring (2008)
- **Nokia:** 15 cell phones valued at \$9,000 (2006, 2008)
- **Microsoft:** 12 Pocket PCs valued at \$5,000

Teaching Experience

Developed and taught each of these courses for the first time in CS at Indiana University:

- **Introduction to Health Informatics,** combined undergraduate and graduate course that provides an overview of health informatics topics, including electronic health records, personal health records, e-health and mobile health, exercise informatics and more.
- **Programming on the Go,** undergraduate course to teach mobile programming using .NET CF and C#. (First offered Spring 2005)
- **Pervasive Computing,** graduate course that teaches design and implementation of pervasive computing projects using Phidgets, RFIDs, PDAs, Ubitable and Elvin. (First offered Fall 2004)
- **Introduction of Computer Security,** graduate course. (First offered Spring 2004)
- **Ubiquitous Computing,** graduate course giving an overview of UbiComp. (First offered Fall 2003)

Taught the following courses:

- **Discrete Structures for Computer Science,** undergraduate core Computer Science course teaching the mathematical foundations for the major. Topics include combinatorics, logic, proofs, induction, sets, relations, trees, graphs and running times of programs.

Obtained funding for the following teaching labs:

- **Cell phone lab:** 14 "smart" phones donated by Nokia, fully loaded. (Fall 2005)
- **PDA lab:** 12 PDAs donated by Microsoft and 12 PDAs and several peripherals (e.g. wireless cards, GPS, bar code scanners, cameras) from IU's Center for Applied Cybersecurity Research. (Fall 2004)
- **Pervasive computing lab:** \$10,000 for a Phidgets lab. Funding obtained from IU's School of Informatics. (Summer 2004)
- **Network and security lab:** \$35,000 for 25 PCs connected with two independent networks. Funding obtained from IU's Center for Applied Cybersecurity Research. (Summer 2003)

Service Summary

School

- **Faculty Advisor**, Women in Computing: 2003 – present
- **Member**, Graduate Education Committee: 2004 - present
- **Member**, Health and Wellness Committee: 2008-2009
- **Member**, School Structure Committee: Fall 2008
- **Member**, Informatics Hiring Committee, HCI, 2007-2008
- **Member**, Informatics Hiring Committee, Cybersecurity, 2007-2008
- **Member**, Diversity Strategic Planning Committee, Fall 2007
- **Co-Chair**, *Bring IT On!* Workshop, 2006, 2007
- **Member**, Colloquium Committee, 2006-2007
- **Faculty Sponsor**, Make IT Happen Poster: 2004, 2005, 2006
- **Member**, Informatics Hiring Committee, Cybersecurity: 2003 - 2005
- **Faculty Sponsor**, Undergraduate Research Poster: Fall 2005
- **Member**, Faculty Advisory Committee: 2004 - 2005
- **Departmental Representative**, NSF Snowbird conference for RI grants: Summer 2004
- **Member**, Undergraduate Education Committee: 2003 - 2004
- **Member**, Hiring Committee, Embedded Systems: 2003-2004
- **Member**, Taskforce on Undergraduate CS Curriculum: 2003-2004
- **Member**, Hiring Committee, Software Systems: Spring 2003
- **Grader**, Systems Qualifier Exam: Fall 2003
- **Letters of Recommendation**: 40+ students
- **Verbal Recommendation**: 10+ students

University

- **Co-Director**, Center for Law, Ethics and Applied Research of Health Information, 2010-present
- **Senior Associate Director**, Center for Applied Cybersecurity Research, 2009 - 2011
- **Associate Director**, Center for Applied Cybersecurity Research: 2003 - 2009.
- **Organizer**, CACR Security Speaker Series: 2004 - present
- **Faculty Advisor**, Women in Science Program, 2004 – 2010
- **Member**, Advanced IT Community Oversight Committee, 2007-2009
- **Member**, Effective Community Taskforce for UITs, 2008 - 2009
- **Faculty Mentor**, IU-HBCU Summer Scholars Program, Summer 2007, 2008.
- **Keynote**, Women in Science Research Day, 2008
- **Master of Ceremonies**, International Science and Engineering Fair Delegation Luncheon, 2006
- **Representative**, IU's Life Science Day at the State House, 2006
- **Organizer and Co-Presenter**: Technology workshop for nurse researchers at their annual research retreat (3/4 day): Summer 2005
- **Organizer**, *Let's Get Physical* Open House, Spring 2005
- **Faculty Judge**, Women in Science Research Day: 2004, 2005, 2006
- **Organizer**, Incoming Graduate Women's Breakfast for CS, INFO & SLIS: 2004 - 2006

Research Community

- **Paper Reviews**: Gerontology, Foundations and Trends in Human Computer Interaction, CHI, Pervasive Health, Pervasive, International Health Informatics Symposium, Monet Journal, HPS, Journal of HCS, PerCom WIP, UbiComp, CSCW, Wiley Book Proposal, E&I journal, Handbook of Information Security, Computer Surveys, AI Magazine
- **Program Committee**: Pervasive Health 2012, International Health Informatics Symposium 2012, Pervasive 2011, Pervasive Health 2011, International Health Informatics Symposium 2010, Pervasive Health 2010, Pervasive Health 2009, Pervasive Health 2008, Pervasive Computing (PerCom) Works-In-Progress 2007, Workshop on System and Network Support for Assisted Living Environments 2007, CHI

Reality Testing Workshop 2006, Pervasive Computing (PerCom) Works-In-Progress 2006, Pervasive Healthcare 2006, www@10 (2004)

- **Associate Editor:** ACM SIGHIT Record, 2010-2011
- **Site Visit Panelist:** Science Foundation Ireland, 2010
- **Program Committee Chair:** Pervasive Health 2009
- **Workshop Organizer:** Agenda Setting Workshop on Privacy and Security of Health Technologies, October 2009.
- **Paper Session Chair:** PervasiveHealth 2006, Context 2005
- **Grant Review Panelist:** NSF grant proposals: summer 2005
- **Invited Panelist:**
 - Security and Ethics of Mobile Devices as a Healthcare Platform, mHealth Summit, Washington DC, October 2009.
 - Science's Next Wave discussion of How to Interview for science students seeking academic positions.
 - Human Autonomy in the Age of Pervasive Computing Panelist at the American Association for the Advancement of Science, 2006

Organization Membership

- Association for Computing Machinery
- IEEE Computer Society
- IEEE Communication Society
- Founding member of Women in Computing at Indiana University (WIC@IU)

Invited Lectures

2011 Invites Talk (2 locations) *Empowering People to Manage and Improve their Health*, INRIA/University of Bordeaux, CREAT-NET/University of Trento

2010 Invited Talk (2 locations) *A mobile health application for a chronically ill, low-literacy population*, Northeastern University, Johns Hopkins University.

2010 Keynote *Forge your own path: an act in two parts*, Indiana Women in Computing Conference, McCormick's Creak, Indiana. February.

2009 Invited Talk *A mobile health application for a chronically ill, low-literacy population*, University of Michigan.

2009 Invited Talk (2 locations) *Empowering People to Manage and Improve their Health*, Data and Search Institute - IU, Health Informatics Seminar - IU.

2008 Invited Talks (8 locations) *Pervasive Technologies for Health: A Focus on the Human*, Glasgow University, UCD-Dublin, Open University-England, Handicom Lab at the Institut Telecom-Paris, LAAS research laboratory in the Department of Information and Engineering Sciences Technologies at the French National Center for Scientific Research-Toulouse France, Motorola Research-Chicago, Microsoft Research, University of Washington.

2008 Keynote Women in Science Research Day, Indiana University.

2008 Invited Lecture *Check Your Privacy at the Door: What Information Do We Give Up When We Use Technology*. Bloomington Science Café.

2007 Invited Talk *Technology Acceptance in Pervasive Computing Environments*, Colloquium at the University of Colorado.

2007 Invited Talk *Increasing Impact through Active Dissemination*, National Center for Women In Technology (NCWIT)

2007 Invited Talk *Pervasive Computing*, IU Summer Scholars Program.

2007 Invited Talk *Bring IT On!: The Sequel*, Alliance for Graduate Education in the Professoriate (AGEP) Conference.

2005 Invited Lecture *From Warfare to Healthcare: One Technologists Journey*. Indiana University, Rob Kling Center for Social Informatics.

2004 Invited Lecture *Beyond the Cool Factor: Using Handhelds in Ubiquitous Computing Research*. Indiana University-Purdue University at Indianapolis, Computer Science Colloquium Series.

2004 Invited Lecture *Helping People with Computer Science*. DePauw Women in Science Speaker Series.

2004 Invited Lecture *Beyond the Cool Factor: Using Handhelds in Ubiquitous Computing Research*. Indiana University, Computer Science Undergraduate Honor's Seminar

2003 Invited Lecture *Ubiquitous Computing*. Indiana University, Computer Science Undergraduate Honor's Seminar.

Publications

Journal Papers

[J12] Khalil ur Rehman Laghari, Noel Crespi and Kay Connelly. *Towards Total Quality of Experience: QoE Model in Communication Ecosystem*. To appear in IEEE Pervasive, 2012.

[J11] Shankar, Kalpana, Camp, L. Jean, Connelly, Kay, Lorenzen-Huber, Lesa. *Aging, Privacy, and Home-Based Computing: Development of a Framework for Design*. IEEE Pervasive Computing. To appear in 2012.

[J10] Caine, K. E., Zimmerman, C. Y., Schall-Zimmerman, Z., Hazlewood, W. R., Camp, L. J., Connelly, K. H., Huber, L. L., & Shankar, K. *DigiSwitch: A device to allow older adults to monitor and direct the collection and transmission of health information collected at home*. Journal of Medical Systems Volume 35, Number 5, 1181-1195, 2011.

[J9] Kalpana Shankar and Kay Connelly. *Ethics and Pervasive Technology: A Collaborative Approach to Teaching*. Teaching Ethics, 2010 11(1): 73-84.

[J8] Lorenzen-Huber, L., Boutain, M., Camp, L.J., Shankar, K., Connelly, K. (2010). *Privacy, Technology, and Aging: A Proposed Framework*. In Ageing International, 2011, 36(2): 232-252.

[J7] Yvonne Rogers, Kay Connelly, William Hazlewood and Lenore Tedesco. *Enhancing Learning: A Study of How Mobile Devices can Facilitate Sensemaking*. In Personal and Ubiquitous Computing, 2010 14:111-124.

[J6] 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, September 2009.

[J5] Katie A. Siek, Kay Connelly, Suzanne Menzel, and Laura Hopkins. *Propagating Diversity through Active Dissemination*. Computer, 40(2):89–92, IEEE Computer Society Press, Los Alamitos, CA, USA, 2007.

[J4] Janet L. Welch, DNS, RN; Katie A. Siek, PhD; Kay H. Connelly, PhD; Josette F. Jones, PhD, RN; Susan M. Perkins, PhD; and Laurie L. Trevino, MS, RD, *Technology in the Dialysis Clinic*. In Renal Business Today, January 2007.

[J3] Katie A. Siek, Kay Connelly, Amanda Stephano, Suzanne Menzel, Jacki Bauer and Beth Plale, *Breaking the Geek Myth*. In Learning and Leading with Technology, Vol. 33, No. 07, April 2006.

[J2] 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

[J1] Andrew Chien, Mario Lauria, Rob Pennington, Mark Showerman, G. Iannello, Matt Buchanan, Kay Connelly, Greg Koenig, Suda Krishnamurthy, Qian Liu, Scott Pakin & Geta Sampemane, *Design and Evaluation of an HPVM-based Window NT Supercomputer*. The International Journal of High-Performance Computing Applications, Vol. 13, No. 3, Fall 1999, pp. 201-219.

Book Chapters

[B4] Tammy Toscos and Kay Connelly, *Using Behavior Modification Theory to Understand and Guide Technological Interventions* In Bill Aspray and Barb Hayes, editors, Health Informatics: A Patient-Centered Approach to Diabetes, pp. 295-326, MIT Press, October 2010.

[B3] Katie A. Siek and Kay Connelly, *Interdisciplinary Collaborations from a Health Informatics Perspective*. In Bill Aspray and Barb Hayes, editors, Health Informatics: A Patient-Centered Approach to Diabetes, pp. 327- 345, MIT Press, October 2010.

[B2] K. A. Siek, K. H. Connelly, B. Chaudry, D. Lambert, and J. 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, pp. 1–23, IGI Global, 2009.

[B1] Jean Camp and Kay Connelly, *Beyond Consent*. Chapter in Digital Privacy: Theory, Technologies and Practices, Alessandro Acquisti, Sabrina De Capitani di Vimercati, Stefanos Gritzalis, Costas Lambrinoudakis (eds). Auerbach Publications (Taylor and Francis Group), 2007.

Peer-Reviewed Conference Papers

[C29] Toscos, T., Connelly, K., and Rogers, Y. *Best Intentions: Health Monitoring Technologies and Children*. To appear in the proceedings of the 30th International Conference on Human Factors in Computing Systems (CHI'12).

[C28] Chaudry, B., Connelly, K., Siek, K.A., and Welch, J.L. *Mobile Interface Design for Low-Literacy Populations*. In the proceedings of the 2012 ACM SIGHIT International Health Informatics Symposium (IHI 2012), January 2012.

- [C27] Huber, L., Borrero, L., Walker, B.A., Shankar, K., Caine, K., Connelly, K., Camp, L.J. *How Older Adults Use Information Technology to Reduce Caregiver Burden*. Presented at the Gerontological Society of America 64th Annual Scientific Meeting, Boston, MA, November, 2011.
- [C26] Vaibhav Garg, Jean Camp, Lesa Mae Lorenzen-Huber, Katherine Connelly. *Designing Risk Communication for Older Adults*. Ethicomp, Sheffield (U.K.), September 14-16, 2011.
- [C25] Chaudry, B., Connelly, K., Siek, K.A., and Welch, J.L. *The Design of a Mobile Portion Size Estimation Interface for a Low Literacy Population*. In 5th International Conference on Pervasive Computing Technologies for Healthcare (Pervasive Health '11), pp. 10, 2011. Nominated for best paper.
- [C24] Hazlewood, W., Connelly, K and Stolterman, E. *Issues of Evaluating Ambient Displays In the Wild: Two Case Studies*. In the proceedings of the 29th International Conference on Human Factors in Computing Systems (CHI'11). ACM, New York, NY, USA.
- [C23] Caine, K.E., Zimmerman, C.Y., Schall-Zimmerman, Z., Hazlewood, W.R., Sulgrove, A.C., Camp, L.J., Connelly, K.H., Lorenzen-Huber, L.M., & Shankar, K., (2010). *DigiSwitch: Design and Evaluation of a Device for Older Adults to Preserve Privacy While Monitoring Health at Home*. To appear in the Proceedings of the Association for Computing Machinery Special Interest Group on International Health Informatics. 2010.
- [C22] Yong Liu and Kay Connelly, *Realizing an Open Ubiquitous Environment in a RESTful Way*. In the Proceedings of the International Conference on Web Services, September 2008.
- [C21] William R. Hazlewood, Kay Connelly, Kevin Makice, Youn-kyung Lim, *Exploring Evaluation Methods for Ambient Information Systems*. In Proc. of the 26th International Conference on Human Factors in Computing Systems, April 2008.
- [C20] Lesa L. Huber and Kay H. Connelly, *Shaping the Next Generation of Gerontechnologists: Multidisciplinary Gerontology vs. Computer Science*. In the Proceedings of the Sixth International Conference of the International Society of Gerontechnology (ISG '08).
- [C19] Tammy Toscos, Anne Faber, Kay Connelly and Adity Mutsuddi Upoma, *Encouraging Physical Activity in Teens: Can Technology Help Reduce Barriers to Physical Activity in Adolescent Girls?*. In the Proceedings of the 2nd International Conference on Pervasive Computing Technologies for Healthcare (Pervasive Healthcare), January 30 – February 3, 2008. Best Paper runner-up.
- [C18] Yvonne Rogers, Kay Connelly, Lenore Tedesco, William Hazlewood, Andrew J. Kurtz, Bob E. Hall, Josh Hursey and Tammy Toscos, *Why it's Worth the Hassle: A Case Study in Using In-Situ Studies during Design*. In the Proceedings of the Ninth International Conference on Ubiquitous Computing (UBICOMP), September, 2007. Nominated for Best Paper.
- [C17] Ashraf Khalil and Kay Connelly, *Do I Do What I Say?: Observed Versus Stated Privacy Preferences*. In the Proceedings of the Eleventh IFIP TC13 International Conference on Human-Computer Interaction (INTERACT), September, 2007.
- [C16] Heekyoung Jung and Kay Connelly, *Exploring Design Concepts for Sharing Experiences through Digital Photography*. In Designing Pleasurable Products and Interfaces (DPPI), September, 2007.
- [C15] Katie 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 Monitoring Application*. In the

Proceedings of the First International Conference on Pervasive Computing Technologies for Healthcare (Pervasive Health), November 2006. Innsbruck, Austria.

[C14] Ashraf Khalil and Kay Connelly, *Context-aware Telephony: Privacy Preferences and Sharing Patterns*. In the Proceedings of Computer Supported Collaborative Work (CSCW), 2006.

[C13] Katie A. Siek, Kay H. Connelly and Yvonne Rogers, *Pride and Prejudice: Learning How Chronically Ill People Think about Food*. To appear in the Proceedings of CHI 2006. Montreal, Canada, April 2006.

[C12] Yong Liu and Kay Connelly, *Towards Wide Area Context-Aware Environments*. In the Proceedings of the 4th IEEE International Conference on Pervasive Computer and Communications (PerCom 2006) Work in Progress Session. Pisa, Italy, March 2006.

[C11] Katie A. Siek, Kay Connelly, and Yvonne Rogers, *Fat Finger Worries: How Older and Younger Users Physically Interact with PDAs*. Lecture Notes in Computer Science (and the Proceedings of the Tenth IFIP TC13 International Conference on Human-Computer Interaction, Rome, Italy), Volume 3585, Sep 2005, Pages 267-280.

[C10] Ashraf Khalil and Kay Connelly, *Improving Cell Phone Awareness by Using Calendar Information*. Lecture Notes in Computer Science (and the Proceedings of the Tenth IFIP TC13 International Conference on Human-Computer Interaction, Rome, Italy), Volume 3585, Sep 2005, Pages 588-600.

[C9] Ashraf Khalil and Kay Connelly, *Context-Aware Configuration: A Study on Improving Cell Phone Awareness*. In the Proceedings of the Fifth International and Interdisciplinary Conference on Modeling and Using Context (CONTEXT), Paris, France, July 2005.

[C8] 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 the Proceedings of HCI International 2005, Las Vegas, NV, July 2005.

[C7] Yong Liu and Kay Connelly, *A Toolkit for Automatically Constructing Outdoor Radio Maps*. In the Proceedings of the International Conference on Information Technology Coding and Computing (ITCC), Las Vegas, NV, April 2005.

[C6] Diane Cessna, Kay Connelly, Beth Plale, Katie Siek, and Amanda Stephano, *Just Be: An Interactive Experience for K-12 Students*. In the Proceedings of Frontiers in Education, Indianapolis, Indiana, 2005.

[C5] 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 the Proceedings of www@10, Terre Haute, IN, September 30-October 1, 2004.

[C4] 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 the Proceedings of www@10, Terre Haute, IN, September 30-October 1, 2004

[C3] Yong Liu, Geetanjali Sampemane and Kay Connelly, *Comparing Cognitive Walkthroughs and Usability Testing for Active Spaces RBAC GUI Design*. In the Proceedings of forUSE 2003, Second International Conference on Usage-Centered Design, pp. 37-44. October 2003.

[C2] Kay Connelly and Andrew A. Chien, *FM-QoS: Real-time Communication using Self-synchronizing Schedules*. In the Proceedings of the 1997 ACM/IEEE conference on Supercomputing (CDROM), November 1997.

[C1] Andrew Chien, Scott Pakin, Mario Lauria, Matt Buchanan, Kay Hane [Connelly], Louis Giannini, and Jane Prusakov, *High Performance Virtual Machines (HPVM): Clusters with Supercomputing APIs and Performance*. In proceedings of the eighth SIAM Conference on Parallel Processing for Scientific Computing (PP97); March, 1997.

Workshop Papers

[W16] Vaibhav Garg, Jean Camp, Katherine Connelly, Lesa Mae Lorenzen-Huber, Kalpana Shankar, Kelly Caine. *Privacy Framework for Older Adults*. Workshop on Security and Human Behavior, Pittsburgh, PA, June 17-18, June 2011.

[W15] Katie A. Siek, Kay H. Connelly, Danish Ellah Khan, Steven E. Ross, Janet L. Welch, Jeffrey S. LaMarche and Beenish Chaudry, *Challenges in Evaluating Three Assistive Health Applications*. In Evaluating New Interactions in Healthcare: Challenges and Approaches, a workshop at the 27th International Conference on Human Factors in Computing Systems, April 2009.

[W14] Rajasee Rege, Heekyoung Jung, William Hazelwood, Greg Orlov, Kay Connelly, Kalpana Shankar, *Exploring early evaluation techniques of ambient health promoting devices in home environments of senior citizens living independently*. In HealthNet '08: Proceedings of the 2nd International Workshop on Systems and Networking Support for Health Care and Assisted Living Environments, June 2008.

[W13] William R. Hazlewood, Kevin Makice and Kay Connelly, *Defining Ambience: Public Ambient Displays*. In Promoting Community Awareness in Workshop: Surrounded by Persuasive Ambient Intelligence – a workshop at the 26th International Conference on Human Factors in Computing Systems, April 2008.

[W12] Kay Connelly, *On Developing a Technology Acceptance Model for Pervasive Computing*. In Ubiquitous System Evaluation (USE) -- a workshop at the Ninth International Conference on Ubiquitous Computing (UBICOMP), September, 2007

[W11] Katie A. Siek, Kay H. Connelly, Yvonne Rogers, Paul Rowher, Desiree Lambert and Janet L. Welch, *The Food We Eat: An Evaluation of Food Items Input into an Electronic Food Monitoring Application*. In UbiHealth 2006 -- a workshop at the Eighth International Conference on Ubiquitous Computing.

[W10] L. Jean Camp, Kay Connelly, Lesa Huber, and Kalpana Shankar, *Beyond Consent: User Defined Privacy in Ubicomp*. In Nurturing Technologies in the Domestic Environment: Feeling Comforted, Cared for, and Connected at Home -- a workshop at the Eighth International Conference on Ubiquitous Computing, 2006.

[W9] Katie A. Siek and Kay H. Connelly, *Lessons Learned Conducting User Studies in a Dialysis Ward*. To appear in Extended Abstracts of CHI 2006: Workshops – Reality Testing: HCI Challenges in Non-Traditional Environments, Montreal, CA, April 2006.

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