

Samantha Finkelstein | Hello

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Education

Carnegie Mellon University **Pittsburgh, PA**
Ph.D. in Human-Computer Interaction, NSF graduate research fellow 2011–2017
Committee: Dr. Justine Cassell, Dr. Amy Ogan, Dr. Sandra Calvert, Dr. Marti Louw

The University of North Carolina **Charlotte, NC**
B.A. in Computer Science and Psychology, University Honors, Magna Cum Laude 2008–2011
Advisor: Dr. Tiffany Barnes

Experience

Non-profit organizations.....

Opportunity Education: Quest Forward **Pittsburgh**
Associate research scientist 2017–Present

I translate academic research around behavior change, effective pedagogy, and community building into design requirements for a digitally-mediated learning environment. I lead user experience research and evaluation using qualitative and quantitative methods, and communicate findings and recommendations to senior leadership.

Assemble PGH: a community space for art and technology **Pittsburgh**
Consulting research associate 2013–Present

I work with board members and staff to strategize program evaluation and iteration in support of youth learning. I translated research principles into experience design to develop a 2013 Summer program geared towards helping youth develop an identity as a scientist.

Citizen Schools **Charlotte**
Community pedagogy specialist 2009–2011

I designed and deployed a ten-week after-school program to teach under-served middle school students computer programming skills and game design principles. Students used these skills to build video games that taught math and science to their peers, or to create user engagement around personal values. I iterated on this curriculum and lead this program four times over two years.

University.....

Carnegie Mellon University **Pittsburgh**
Educator 2013–2017

I served as the primary instructor for six undergraduate independent study courses that included *field methods in the learning sciences*, *social behaviors with educational technologies*, and *language and identity in user experiences*. I was also a teaching assistant for two HCI foundation classes titled *Designing Human-Centered Systems* and *User-Centered Research and Evaluation*.

University of Pittsburgh **Pittsburgh**
Educator 2015–2017

I co-instructed two senior level linguistics field methods courses that focused on applying sociolinguistic research practices towards the design of effective social technologies.

Honored invitations

- 2017:** Global Education and Skills Forum. Dubai, UAE. *The future of education: technology panel.*
- 2016:** World Economic Forum. Davos. *Social AI for science and literacy: technology demonstration.*
- 2015:** World Economic Forum. Dalian. *Socio-cultural technologies for a better world: demonstration*
- 2014:** Dagstuhl Seminar, models of culture in human-agent interaction, *presentation.*
- 2011:** National Center for Women in Technology award ceremony, *Keynote Speaker.*

Awards

- 2011:** National Science Foundation (NSF) Graduate Research Fellowship
- 2011:** Institute of Educational Sciences (IES) interdisciplinary education research fellow
- 2011:** Achievement Rewards for Collegiate Scholars, Carnegie Mellon University
- 2013:** Best paper award, Artificial Intelligence in Education
- 2014:** Graduate research grant to support building new charter school partnerships
- 2015:** Graduate research grant to purchase technology for use with after-school program
- 2017:** Technology, Media, and Child Development doctoral consortium acceptance award

Community engagement

- 2017:** Invited speaker for Invisible Jazz Labs Speaker Series on systemic barriers in education
- 2013:** Contributing speaker at NWAV's continuing-education seminar on race and language
- 2013-2015:** Science Activities invited board member at Urban League Pittsburgh Charter School
- 2011-2016:** Pittsburgh Regional Science Fair Judge for middle-grades behavioral science
- 2012-2015:** Youth mentor, Pittsburgh's Gay and Lesbian teen community center
- 2015-2017:** "Community expert" for race, education, and social justice at AssemblePGH
- 2011-2014:** Women@SCS peer mentor for building community in computer science

Academic service

- Organizing committee:** Technology, Media, and Child Development. Helped design and write the grant to fund doctoral consortium workshop, 2016.
- Program committee:** Intelligent Virtual Agents (2017), IEEE Virtual Reality (2010, 2011), Designing Interactive Systems (2012), Foundations of Digital Games (2010, 2011)
- Peer reviewer:** Journal of Child Development Research (2017), Artificial Intelligence in Education (2012, 2014, 2016), Humanoids (2012), Computer-Human Interaction (2012 – 2014), Artificial Intelligence in Education (2013, 2015)
- Invited lecture: Robots and Rhetoric:** Everyday structural bias in technological systems (2016)
- Invited lecture: Sociolinguistics:** Language, technology, and the hidden curriculum (2014)
- Invited lecture: Educational games:** Designing for societal and ideological change (2014, 2015)

Selected publications

- Journal**.....
- Evaluation of the cognitive effects of travel technique in complex real and virtual environments:** *IEEE Transactions on Visualization and Computer Graphics*. Suma, E., Finkelstein, S., Reid, M., Babu, S., Ulinski, A., and Hodges, L. F. 16(4), 690-702, 2010.
- Astrojumper: Motivating exercise with an immersive virtual reality exergame:** *Presence: Teleoperators and Virtual Environments*. Finkelstein, S., Nickel, A., Lipps, Z., Barnes, T., Wartell, Z., Suma, E. A. 20(1), 78-92, 2011.
- Perceptual comparisons with laterally presented pictures and environmental sounds:** *The American journal of psychology*. Goolkasian, P., Finkelstein, S., and Stubblefield, A. 124(4), 379-393, 2011.
- Evaluating visual query methods for articulated motion video search:** *International Journal of Human-Computer Studies* Mauceri, C., Suma, E. A., Finkelstein, S., Souvenir, R. 77, pp. 10-22, 2015).
- Conference**.....
- The effects of culturally congruent educational technologies on student achievement:** *Artificial Intelligence in Education*. Finkelstein, S., Yarzebinski, E., Vaughn, C., Ogan, A., and Cassell, J. (pp. 493-502), July, 2013.
- Through the thin slice looking glass: rapport and co-construction in peer collaboration:** *International Society of the Learning Sciences*. Olsen, J. K., and Finkelstein, S. Philadelphia, PA, 2017
- Love ya, jerkface: using sparse log-linear models to build positive (and impolite) relationships with teens:** *Discourse and dialogue*. Wang, W. Y., Finkelstein, S., Ogan, A., Black, A. W., and Cassell, J. (pp. 20-29), 2012.
- Oh dear Stacy!: social interaction, elaboration, and learning with teachable agents:** *Human Factors in Computing Systems*. Ogan, A., Finkelstein, S., Mayfield, E., D'Adamo, C., Matsuda, N., and Cassell, J. (pp. 39-48), 2012.
- Rudeness and rapport: Insults and learning gains in peer tutoring:** *Intelligent Tutoring Systems*. Ogan, A., Finkelstein, S. L., Walker, E., Carlson, R., and Cassell, J. (pp. 11-21), 2012.
- SNAG: using social networking games to increase retention in computer science:** *Innovation in computer science education*. Finkelstein, S. L., Powell, E., Hicks, A., Doran, K., Charugulla, S. R., and Barnes, T. (pp. 142-146), 2012.
- Reaching out with game design:** *Foundations of Digital Games*. Doran, K., Boyce, A., and Finkelstein, S. (pp. 250-251), 2010.
- Evaluation of the Exertion and Motivation Factors of a Virtual Reality Exercise Game for Children with Autism:** *Virtual and Augmented Assistive Technology*. Finkelstein, S., Barnes, T., Wartell, Z., Suma, E. A. (pp. 11-16), 2013.
- Leveraging change blindness for redirection in virtual environments:** *IEEE Virtual Reality*. Suma, E. A., Clark, S., Finkelstein, S., Wartell, Z., Krum, D., Bolas, M. March, 2011)
- Peer-reviewed workshop**.....
- Educational technologies and the challenges of classroom integration:** *Artificial Intelligence in Education workshop on culturally-aligned tutoring systems*. Finkelstein, S. (pp. 836-839, June,

2015).

Effects of redirection on spatial orientation in real and virtual environments: *3D User Interfaces (3DUI)*. Suma, E. A., Krum, D. M., Finkelstein, S., and Bolas, M. (pp. 35-38), 2011.

Alex: A virtual peer that identifies student dialect: *Workshop on Culturally-aware Technology Enhanced Learning*. Finkelstein, S., Ogan, A., Vaughn, C., and Cassell, J. Paphos, Cyprus, 2017.

Investigating the influence of virtual peers as dialect models on students' prosodic inventory: *Third international workshop on children, computers, and interaction* Finkelstein, S., Scherer, S., Ogan, A., Morency, L. P., and Cassell, J. 2013.

How culturally aligned technological systems can impact educators' ideologies.: *Sixth international workshop on culturally-aware tutoring systems*. Finkelstein, S. (pp. 44 - 49), 2015.

cMotion: A game design to teach emotion recognition and programming logic using virtual humans: *IEEE Virtual Reality*. Finkelstein, S., Nickel, A., Harrison, L., Suma, E. A., Barnes, T. (March, 2011)

Modeling ethnicity into technology: Using virtual agents to understand sociolinguistic variation: *Proceedings of New Ways of Analyzing Variation*. Finkelstein, S., Vaughn, C., Ogan, A., Cassell, J. (October, 2013.)

Real collaboration with a virtual peer: Results from co-design in an early elementary context: *Workshop on Intelligent Support in Exploratory Environments at Intelligent Tutoring Systems*. Finkelstein, A., Ogan, A., Cassell, J. (June, 2012.)

An approach to redirect walking by modifying virtual world geometry: *IEEE Virtual Reality Workshop on Perceptual Illusions in Virtual Environments*. Suma, E.A., Finkelstein, S., Clark, S., Wartell, Z. (pp. 16-18., 2009).

Outreach for improved student performance: a game design and development curriculum: *Proceedings of the 17th ACM annual conferences on Innovation and Technology in computer science education*. Doran, K., Boyce, A., Finkelstein, S., Barnes T. (July, 2012)