Empowerment of People with Disabilities

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Download slides at: shaun.cat/urmd2019

2019 CRA URMD Grad Cohort Workshop

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Objectives

- Build connections within your cohort

- Identify role models

- Learn strategies

- Find resources

- Make a plan for next steps

Shaun Kane

- Associate Professor, University of Colorado Boulder (previously: UMBC)

- PhD in 2011 from University of Washington (advisors: Jacob Wobbrock & Richard Ladner)

- Research: HCI+accessibility, innovative accessible technology, accessible creative tools

- Non-work activities: reading comic books, working with electronics, exploring nature

- CU Superhuman Computing Lab: superhuman.cs.colorado.edu

- Web site: shaunkane.com

Richard Ladner

- Education:
- B.S. St. Mary's College of California 1965
- Ph.D. University of California, Berkeley 1971
- Professor, University of Washington 1971 -2017
- Professor Emeritus, University of Washington 2017-now

- Research: Accessibility, a subfield of Human Computer Interaction (HCI). Formerly, theoretical computer science.

- Mentoring: 30 PhD students, 12 in academia, 18 in industry, a few retired. 100 undergraduates.

- Outreach: AccessComputing, 2006-now AccessCSforAll, 2014 - now

- Hobbies: Golf, skiing, crossword puzzles

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Introduce your neighbor (after 5 minutes)

- Their name

- Their school and year

- Something surprising about them

Demographics of Disability in Computing

- National Center for Education Statistics
  - 15% K-12 in US under IDEA or Section 504
  - 11% College students
  - 4% Graduate students

- 2018 StackOverflow Survey (N=100,000 internationally)
  - 11.4% hidden disability (ADHD, autism, mental health, anxiety)
  - 1.7% physical disability

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StackOverflow survey

https://insights.stackoverflow.com/survey/2018#demographics

Mental Health and Differences | Physical Differences

I have a mood or emotional disorder (ex. depression, bipolar disorder)	8.5%
I have an anxiety disorder	7.8%
I have a concentration and/or memory disorder	5.9%
I identify as autistic / a person with autism	2.1%

11,431 responses identified as having a mental difference

Mental Health and Differences | **Physical Differences**

I am blind / have difficulty seeing	1.4%
I am deaf / have difficulty hearing	0.8%
I am unable to / find it difficult to walk and/or stand without assistance	0.3%
I am unable to / find it difficult to type	0.3%

1,702 responses identified as having a physical difference

Resources for Career Development

- URMD Grad Cohort

- Tapia Celebration of Diversity in Computing (Fall)
  - Scholarships (due March 29th)
  - Strong program of speakers, workshops, and panels

- CMD-IT Academic Careers Workshop (Spring)
  - Grant writing
  - Navigating an academic career

- AccessComputing
  - Peer Mentoring (appox. 400 students nationwide)
  - Funding to attend conferences

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Funding opportunities

- [Google Lime Scholarship](#)

- [Microsoft Research Dissertation Grant](#)

- [NSF FASED Award](#) (Facilitation Awards for Scientists and Engineers with Disabilities)

- [NSF Graduate Research Fellowship](#)

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Audience participation

- Go to www.menti.com

- Enter code **56 89 86**

Q1. What issues would you like to discuss?

- Go to www.menti.com

- Enter code **56 89 86**

- (Or just raise your hand)

Q2. Do you have strategies to share?

- Go to www.menti.com

- Enter code **85 69 46**

- (Or just raise your hand)

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Tips on being an ally

- Don't assume others' ability/disability

- Everyone may have different preferences for terminology, accommodations, etc.

- Keep your peers' comments and concerns confidential

  - There's nothing shameful about disability, but it's important for people to be able to disclose their own information

- Make everything you do accessible

- Avoid saying "I'm sorry"

Quick accessibility tips

- When giving talks
  - Make sure to describe all visual content
  - Go slowly and be ready for questions and clarifications
  - Use a simple visual design

- When writing
  - Label images and tables
  - Create accessible PDFs or use accessible formats (like plain text or HTML)

- In other work
  - Consider potential accessibility issues
  - Learn the accessibility features of your tools

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Accessibility resources

- [ACM SIGACCESS Accessible Presentation Guide](#)

- [ACM SIGACCESS Accessible Writing Guide](#)

- [ACM SIGACCESS Accessible PDF Author Guide](#)

- [WebAIM (for web accessibility)](#)

Action Plan

- Talk with your neighbors

- Come up with ~3 personal actions that you could take in the near future

- What can you do to address personal challenges?

- What can you do to be an ally?

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Q&A

- Go to www.menti.com

- Enter code **56 89 86**

- (Or just raise your hand)

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Thank you!

Extra slides

DATA ON PWD IN COMPUTING (Richard)

According to the Census Bureau's 2014 American Community Survey, 13% of the U.S. population has some disability. About 11% of undergraduate students reported a disability, but only about 25% of undergraduates with a disability enroll in a STEM field. About 7% of graduate students reported a disability in 2012, but only 20% of graduate students with disabilities are likely to enroll in a STEM field. This session discusses how to encourage people with disabilities to choose and succeed in STEM careers, how to reach these students at a young age, and how to influence teachers and parents, who in many cases are discouraging young people with disabilities to embrace STEM careers. Strategies will be discussed to strive and thrive in computer science.

Some ideas:

- Let people know about all resources (AccessComputing, ASSETS?, sigchi-access, CMD-IT workshop)
- Introductions (one thing about themselves)

- Much time to raise questions / issues
- Time for students to share strategies

- Accessible materials / talks / etc?
- How to be an ally?