

Panel: An intersectional approach to including disability in BPC

Richard E. Ladner

*Paul G. Allen School of Computer Science
and Engineering
University of Washington
Seattle, USA
ladner@cs.washington.edu*

Cecilia Aragon

*Department of Human Centered Design &
Engineering
University of Washington
Seattle, USA
aragon@uw.edu*

Jerry Robinson

*Central Accessibility Team
Google
Mountain View, USA
jlrubi1@gmail.com*

Jeremy A. Magruder Waisome

*Department of Engineering Education
University of Florida
Gainesville, USA
jwaisome@eng.ufl.edu*

Rua M. Williams

*User Experience Design Program
Purdue University Polytechnic Institute
West Lafayette, USA
rmwilliams@purdue.edu*

Abstract— Most broadening participation efforts focus on race and gender despite the efforts of a small group of people to ensure that disability is included in conversations related to diversity, equity, and inclusion. Because disability cuts across all race and gender demographics, there needs to be focus on how the intersection of disability and other minoritized demographics play out in broadening participation efforts. How can broadening participation efforts take steps to ensure that they are welcoming and accessible to wide groups of people, including people with disabilities? Are girls with disabilities able to participate in CS education efforts that target girls? Are programs that target African Americans accessible and welcoming to those who have disabilities? Do we even have data about whether people with disabilities are in our classrooms and programs? If we do, is that data analyzed? Panelists will share their experiences, which include being a person with a disability in computing, teaching about disability and diversity in computing courses, and managing broadening participation efforts and ways that peers can make broadening participation in computing research and outreach more welcoming.

Keywords—disability, intersectionality, accessibility

I. SUMMARY

Disability is mostly absent in broadening participation research, policy, and practice [1]. Quantitative efforts rarely ask about disability and if they do, they don't analyze the data with respect to disability. [1,2,3]. There is a distinct lack of data about the participation of people with disabilities in computing [4].

In 2017 data from Data Buddies, students with disabilities were significantly more likely to report feeling like an outsider (32%) than majority men without disabilities (17%) [5]. Women with disabilities (46%) and underrepresented minorities with disabilities (45%) were the most likely to report feeling like an outsider. Findings such as this highlight the importance of including disability in BPC (broadening participation in computing) efforts and the extent to which these efforts need to take an intersectional approach that considers other minoritized populations.

II. PANEL STRUCTURE

The panel will begin with 10-minute presentations from the panelists about their experiences in a computing field as a person from an underrepresented group who also has a disability. Following the presentations, the moderator will ask questions of the panelists and then open the discussion to the audience.

Questions that may be asked during the initial discussion include the following:

- How can conversations around BPC approach disability with an intersectional lens?
- How can computing benefit from greater participation of people with disabilities?
- What advice do you have for our community about ways to be more welcoming and accessible to people with disabilities?
- What resources would you recommend to learn more about disability in education and employment?

The panel will be moderated by Richard E. Ladner (he/him/his), the Principal Investigator for AccessComputing, a project funded by the National Science Foundation with the goal of increasing the participation and success of people with disabilities in computing fields. AccessComputing strongly supports empowering people with disabilities to allow them to make significant contributions to computing fields. It also appreciates that individuals with disabilities may identify with other minoritized groups and that understanding these identities is important to their success.

III. POSITION STATEMENTS

The four panelists are Cecilia Aragon, Jerry Robinson, Jeremy A. Magruder Waisome, and Rua M. Williams.

A. *Cecilia Aragon (she/her/hers)*

Dr. Cecilia Aragon is Professor in the Department of Human Centered Design & Engineering and Senior Data Science Fellow at the eScience Institute at the University of Washington in Seattle. Her research focuses on human-centered data science, an emerging field at the intersection of human-computer interaction (HCI) and data science. She has authored or co-authored over 130 peer-reviewed articles, 3 books, and over 140 other publications in the areas of HCI, data science, machine learning, and astrophysics, and has been awarded over \$28M in research funding. Dr. Aragon is a recipient of the Presidential Early Career Award for Scientists and Engineers (PECASE), the highest honor bestowed by the US government on outstanding scientists in the early stages of their careers. In 2016, she became the first Latina to be named to the rank of full professor in the College of Engineering at UW in its hundred-year history.

B. *Jerry Robinson (he/him/his)*

Dr. Jerry Robinson is a UX Researcher on Google's Central Accessibility Team supporting the Lookout Android app. He conducts foundational research to understand the lived experiences of individuals who are blind or have visual impairments globally. Dr. Robinson also conducts research to identify ways to improve product usability, accessibility, and the overall user experience. Prior to joining Google, Dr. Robinson was a User Experience Researcher at Facebook. He earned his Ph.D. in Human Computer Interaction from Syracuse University. His dissertation explored accessibility from the perspective of individuals with mobility and dexterity impairments who engage in design-like activities to make everyday life accessible for themselves. Dr. Robinson is an African American male with a disability.

C. *Jeremy A. Magruder Waisome (she/her/hers)*

Dr. Jeremy A. Magruder Waisome is a Lecturer in the Department of Engineering Education at the University of Florida. Her research focuses on understanding the mentored experiences of minoritized undergraduate and graduate students in engineering and computing through the lens of critical mentoring. Mentoring programs are often not theoretically grounded, evidence-based, or culturally responsive. Dr. Waisome aims to not only develop programs that incorporate these best practices, but to also study new approaches for advancing mentoring relationships, particularly in research settings. Her work leverages both narrative methodologies and critical theories, allowing the voices of those underrepresented in these disciplines to be heard and amplified. Dr. Waisome is an African American woman who lives with a hidden disability.

D. *Rua M. Williams (they/them/their)*

Dr. Rua M. Williams is an Assistant Professor in the User Experience Design program at Purdue University. They study interactions between technology design, computing research practices, and Disability Justice. Common approaches to technology and service design for marginalized people tend to naturalize existing inequities, exacerbating injustice even while they attempt to ameliorate it. Dr. Williams deploys Feminist and Anti-Racist approaches to Technoscience, Critical Disability Studies, and Science and Technology Studies in the design and evaluation of technological systems to simultaneously illustrate injustice in technology as well as marginalized users' own practices of resistance through those same technologies. Dr. Williams is disabled and queer.

ACKNOWLEDGMENT

This panel is organized with funding from the National Science Foundation (NSF), grant CNS-1539179. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the moderator or panelists and do not necessarily reflect the views of the NSF.

REFERENCES

- [1] H. Metcalf, D. Russell, and C. Hill, "Broadening the Science of Broadening Participation in STEM Through Critical Mixed Methodologies and Intersectionality Frameworks," *American Behavioral Scientist*, vol. 62, no. 5, pp. 580-599, 2018.
- [2] J. C. Garvey, "Demographic information collection in higher education and student affairs survey instruments: Developing a national landscape for intersectionality," in *Intersectionality and higher education: Research, theory, and praxis*, D. Mitchell, C. Simmons, and L. Greyerbiehl, Eds. New York, NY: Peter Lang, 2014, pp. 201-216.
- [3] E. V. Peña, "Marginalization of published scholarship on students with disabilities in higher education journals," *Journal of College Student Development*, vol. 55, pp. 30-40, 2014.
- [4] B. Blaser and Richard E. Ladner. "Why is Data on Disability so Hard to Collect and Understand?" Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT 2020), 8 pages. [Online]. Available: <http://respect2020.stcbp.org/digital-proceedings/>
- [5] B. Tamer, "Feeling like an outsider in computing? You are not alone!" *Computing Research News*, vol. 31, no. 2, Feb. 2019. [Online]. Available: <https://cra.org/crn/2019/02/feeling-like-an-outsider-in-computing-you-are-not-alone/>