



Broadening Participation in Computing Education: Advancing LGBTQIA+ Voices

Wendy M. DuBow
dubow@colorado.edu
University of Colorado-Boulder
Boulder CO

Stephanie Jones
stephanie.jones@u.northwestern.edu
Northwestern University
Evanston IL

Amanda Menier
amenier@sagefoxgroup.com
SageFox Consulting Group
Amherst MA

Stacey Sexton
ssexton@sagefoxgroup.com
SageFox Consulting Group
Amherst MA

Sri Yash Tadimalla
stadimal@uncc.edu
University of North Carolina
Charlotte
Charlotte NC

ABSTRACT

Broadening participation in computing (BPC) has been a key focus of the National Science Foundation (NSF) for over two decades. Its aim is to support students and faculty from historically underrepresented groups, including women, people with disabilities, and certain racial and ethnic groups. Within these communities, the diverse range of gender and sexual identities remains overlooked in computing education research (CER). To address this invisibility, this panel will discuss the benefits of integrating LGBTQIA+ perspectives. The moderator will provide context, define relevant terms, and set ground rules for discussion. The panelists will offer insights from a variety of perspectives, including: a discussion of the policy landscape impacting LGBTQIA+ students and the importance of incorporating their perspectives as researchers and participants; the erasure of queer history in computer science and advocate for LGBTQIA+ inclusion, considering the humanitarian calling for the field and CS educators in our tech-driven world; the current resistance to supporting LGBTQIA+ scholarship in computing, advocating for an inclusive approach; and finally, the experiences of marginalized individuals in CS education and ways to support them, emphasizing inclusivity through storytelling and personal narratives. The panel aims to increase visibility, understanding, and collaboration between the computing education research community and LGBTQIA+ individuals. By acknowledging and integrating diverse perspectives, we can begin to create a more inclusive, equitable computing landscape.

ACM Reference Format:

Wendy M. DuBow, Stephanie Jones, Amanda Menier, Stacey Sexton, and Sri Yash Tadimalla. 2024. Broadening Participation in Computing Education: Advancing LGBTQIA+ Voices. In *Proceedings of SIGCSE '24*. ACM, New York, NY, USA, 2 pages. <https://doi.org/10.1145/3626253.3631661>

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the owner/author(s).
SIGCSE '24, March 20–24, 2024, Portland, OR
© 2024 Copyright held by the owner/author(s).
ACM ISBN 978-1-4503-0424-6/24/03.
<https://doi.org/10.1145/3626253.3631661>

1 SUMMARY

This panel has as its primary goal to raise awareness of, and increase knowledge about, issues important to computing education and research (CER). Because issues related to the LGBTQIA+ communities in the realms of CER have not been broached formally in panels or papers at SIGCSE, or other important CER venues, we aim to begin a conversation that we hope will lead to many more. We request a hybrid session for the sake of inclusivity, so that the many people in this community who are unable to travel due to safety, health, or financial concerns still have an opportunity to be involved. LGBTQIA+ persons exist in CER, classrooms, and the technical workforce; thus, it is critical to acknowledge, respect, and integrate them. Increased diversity has positive benefits at the individual, institutional, and societal levels [1]. Inclusion of diverse perspectives has positive impacts on innovation and national capacity [3]; additionally multicultural classrooms have long-term impacts on the attitudes and beliefs of the students in them [2]. Beyond strengthening outcomes related to the learning and workforce competency goals that we hold for computing and engineering, there is an ethical imperative to acknowledge and support those who are being marginalized and oppressed. We work within this imperative. The intended audience is two-fold: Any SIGCSE attendees who identify as LGBTQIA+ and allies who want to learn more about what individuals and research from these LGBTQIA+ communities can offer the CER field.

2 PANEL STRUCTURE

There will be four panelists and one moderator. The four panelists have lived experience relative to the issues being discussed, and the Moderator has lived experience as an ally. They have also all been involved in CER. The Moderator will provide context, definitions of terms, and set ground rules for an accountable and learning space since the identities we will be sharing and discussing are under attack. One panelist, and we believe, many participants will be online in our proposed hybrid format. Each panelist will give a brief starter on their selected topic and share their positionality. We will make use of slides and handouts. After the brief starters, we will invite audience members from the LGBTQIA+ community to add their knowledge to the conversation. Subsequently, the moderator will solicit audience questions. Our goal is to provoke thought and discussion and provide resources for further learning. Per the

schedule below, we are limiting our time per speaker in order to have broad representation on the panel and also recognize and incorporate audience expertise.

3 POSITION STATEMENTS

3.1 Wendy DuBow (Moderator)

Dr. Wendy DuBow holds a director position on the social science team at the National Center for Women & Information Technology (NCWIT) and is an affiliate faculty member in Women and Gender Studies at the University of Colorado-Boulder. At NCWIT, she conducts mixed methods social science research and directs evaluation. She has been PI, co-PI, and senior personnel on NSF and other computing-related grants since 2009. DuBow is a cis-gender woman, second-generation in a refugee family, and parent of two adult children, one of whom is a member of the LGBTQIA+ community. She strives to activate her allyship to individuals in the LGBTQIA+ community through her research as well as personal and professional interactions.

3.2 Stacey Sexton

Stacey Sexton is a researcher and evaluator in CER with 10 years of experience. They are a member of the LGBTQIA+ community and bring their lived experience in addition to empirical knowledge. Sexton will discuss the policy landscape that we are living within and connect it with the lived experiences of the students in CS. They will note that there are many other concerns that LGBTQIA+ people are facing beyond their experiences within CS spaces. They will highlight the importance of situating LGBTQIA+ researchers as also experiencing forces of marginalization and calling for solidarity. Sexton, along with panelist Menier, facilitated a workshop for Transgender and Nonbinary researchers in CS and Engineering in which we collectively developed an initial research, policy and practice agenda that explored intersectional identities for these students as they move through the CS ecosystem.

3.3 Amanda Menier

Amanda Menier has been with SageFox Consulting Group since 2019 and brings an organizational studies lens to research and evaluation in CER. Panelist Menier is also a member of the LGBTQIA+ community and has previously studied LGBTQIA+ inclusion in sports. As noted above, Menier was a co-PI for a workshop centered on Transgender and Nonbinary computing and engineering.

Elapsed Time	Topic
:00-:10	Moderator: Introduction and norms
:11-:15	Panelist 1
:16-:20	Panelist 2
:21-:25	Panelist 3
:26-:30	Panelist 4
:31-:35	Audience: Individual reflection
:36-:60	Audience comments and questions
:61-:75	All: Panelist responses & final comments

Table 1: Proposed Use of Time

Menier will speak about how resistance to supporting LGBTQIA+ scholarship can have a negative longterm impact for both the field and the individual researcher as well as the impact of having a research project that is deeply personal.

3.4 Sri Yash Tadimalla

Sri Yash Tadimalla is a Ph.D. student in the College of Computing and Informatics at UNC Charlotte, where he is pursuing an interdisciplinary degree in Computer Science and Sociology. There he assists with various NSF research projects under the Center for Education Innovation (CEI) Lab and the Human-Centered Computing (HCC) Lab. His doctoral work focuses on Using an intersectional positionality approach on student experience to understand the lack of diversity in the field of AI and Computer Science. He is the General-Secretary for the World Student Platform for Engineering Education and Development (SPEED) and a member of the United Nations Major Group for Children and Youth. He is a first-generation South-east Indian immigrant and graduate student. He identifies as a cis-man and uses the pronouns He/Him/His. Tadimalla will talk about LGBTQIA+ students' sense of belonging; share personal motivations/barriers while pursuing CS; and what does advocacy look like at state/federal/global levels. He will address the humanitarian calling for our field and CS educators and how "leave no one behind" provides a framework for LGBTQIA+ inclusion in CS.

3.5 Stephanie T. Jones

Stephanie T. Jones is a Ph.D. Candidate in Computer Science and Learning Sciences PhD program at Northwestern University. Jones's interests span context and intellectual communities from Black Studies, Education, Computing, and Abolition. Their research interests include intergenerational learning opportunities and the relationships between anti-Blackness, Black Life, learning, and STEM. She is motivated by her own experiences as the only Black graduate of the 2018 class at Villanova University in both Computer and Electrical Engineering. She has been supported by the National GEM Consortium, the National Science Foundation, and the National Society of Black Engineers. Jones is a non-binary Black femme from the Philadelphia area and uses they/she pronouns. Jones will explore Computer Science Education at the margins. They engage in storytelling to describe how people of marginalized backgrounds are experiencing CS in different ways and how we can support them. They will facilitate a space of reflection for the group before we enter our question and answer segment.

ACKNOWLEDGMENTS

Funding was provided in part by National Science Foundation CISE 2216561.

REFERENCES

- [1] Jeffrey F Milem. 2003. *The educational benefits of diversity: Evidence from multiple sectors*. Stanford University Press, 126–169.
- [2] Heather Smith, Ray Parr, Raven Woods, Brooke Bauer, and Tim Abraham. 2010. Five years after graduation: Undergraduate cross-group friendships and multicultural curriculum predict current attitudes and activities. *Journal of College Student Development* 51, 4 (2010), 385–402.
- [3] Trung V Vu. 2022. Linking LGBT inclusion and national innovative capacity. *Social Indicators Research* 159, 1 (2022), 191–214.