

“Addressing Diversity & Inclusion Issues in Computer Science through Contributions to Free and Open Source Software”

Christian Murphy, University of Pennsylvania
Judy Weng, University of Pennsylvania
Nanette Veilleux, Simmons College
Jan Pearce, Berea College

Diversity and inclusion has long been identified as a problem within computer science, but even minority groups who have many more advocates and outreach initiatives, such as women, still are highly underrepresented. Other groups that may see themselves as outsiders to the field – based on sexual preference, socio-economic status, physical disability, or ethnicity – have recently started gaining more awareness, but still have little to no community, initiatives, and or even statistics regarding their representation within the tech sector.

D&I is a pipeline problem that starts well before one is ready to enter the workforce, therefore it would be beneficial to start more academic initiatives designed for inclusion of the under-represented minorities. This BOF will explore curricular approaches in higher education in which participation in and contribution to Free and Open Source Software (FOSS) communities and projects are used to help overcome underlying challenges that may be preventing or discouraging minority groups from pursuing computer science.

Participating in FOSS projects helps students feel that they are part of a community within computing. This can address feelings of isolation and separation, while allowing students to retain anonymity if so desired, thus overcoming potential insecurities related to identity issues. Additionally, FOSS communities provide the opportunity for students to find mentors, role models, and direct support; these connections are crucial steps toward a sense of belonging. Last, students’ confidence will grow as their contributions are incorporated into the projects, and when students see that their contributions actually have “real world” impact – particularly in Humanitarian FOSS projects – they can be further motivated to continue in this field.