ABSTRACT:

Broadening Participation in Computing by Opening New Pathways to the BS, MS and PhD.

For the last two decades professors, non-profits, philanthropists, NSF and other agencies have been working to broaden participation in computing (BPC) in higher-ed at all levels and some progress has been made, but often it is incremental and takes place in small pockets. To accelerate the rate of progress in diversifying computing nationally requires that we as a field understand and remove institutional barriers at every level of higher ed, and that we rethink the invitation to create systemic sustainable change.

Launched in 2019 with funding from Pivotal Ventures LLC, an investment and incubation company created by Melinda French Gates, the Center for Inclusive Computing (CIC) is working in partnership with colleges and universities across the country to increase the representation of women – of all races and ethnicities – in computing. A key focus is to identify and remove institutional barriers and create new pathways to computing.

In her talk, Dr. Carla Brodley, the CIC’s Executive Director and former dean of Northeastern’s Khoury College of Computer Sciences, will explore the most common institutional barriers the CIC is seeing across its portfolio. She will discuss the concrete measures that can be taken to address barriers to retention and the need to open new pathways to computing, such as creating a BA in computing, making CS1 a general education requirement, handling the distribution of prior computing experience in the intro sequence, creating interdisciplinary BS/BA degrees, rethinking PhD admissions, and creating and scaling the MS in CS for non-computer science majors.