University at Buffalo
The State University of New York

Department of Computer Science and Engineering

Presents

Jan Cuny, National Science Foundation

The CS 10K Project: Mobilizing the CS Community around High School Education

The US leads the world in computing—both innovations *in* computing, and innovations *using* computing—but that leadership is in jeopardy because we are not building the talent pool needed to sustain it. The building of a talent pool should start with K-12 education, but our schools are not providing broad access to quality computer science courses. In fact, the percentage of high school students who take CS is lower now than it was 20 years ago. The CS 10K Project aims to change that by developing effective new high school curricula and getting that curricula into courses taught by 10,000 well-prepared teachers in 10,000 high schools.

The centerpiece of CS 10K is a new AP course, called CS Principles. It is designed to be engaging, accessible, rigorous, and most of all inspiring. It covers programming, but is not programming centric. It also covers computational thinking skills, and the underlying principles of computing, its range of applications, societal impacts, and "magic, joy and beauty". The framework for this course exists and the development and evaluation of curricula, course materials, assessments, and alternative delivery mechanisms including online, remote, and dual credit are underway. The harder part of the CS 10K Project, though, will be to train the needed teachers and to gain entrée into 10,000 schools. That effort will require the commitment and involvement of the entire computing community, including K-12 teachers, university faculty, undergraduate and graduate students in service learning and outreach programs, and professionals serving as citizen scientists. This talk is both a status update on the CS 10K Project and a call to action.

Bio: Jan Cuny spent many years a member of the computer science faculty, first at Purdue University, and then at the University of Massachusetts and the University of Oregon. Since 2004, she has been a Program Officer at the National Science Foundation, where she heads the Education workforce Cluster. Her primary interests are in education—especially K-12 education—and broadening participation. She is currently a Program Officer for NSF's Computing Education for the 21st Century and Broadening Participation in Computing Alliance programs.   Jan has been involved in efforts to increase the participation of underrepresented groups in computing for many years. She was a member of the Computing Research Association's Committee on the Status of Women, the Advisory Board for Anita Borg Institute for Woman and Technology, the Leadership team of the National Center for Women in Technology, and the Executive Committee of the Coalition to Diversify Computing. At NSF she founded the Broadening Participation in Computing Program. For her efforts with underserved populations, she is a recipient of one of the 2006 ACM President's Award, the 2007 CRA A. Nico Habermann Award, and the 2009 Anita Borg Institute's Woman of Vision Award for Social Impact.

Thursday, October 13, 2011   3:30 - 4:45 PM

University at Buffalo – North Campus – 201 SU Theater
Refreshments for attendees after the talk in Bell 224   This talk is free and open to the public

For more information, please email **cse-dept@cse.buffalo.edu** or contact (716) 645-3180