Online Courses and Computer-Aided Education: Opportunities and Challenges

Professors Pieter Abbeel, Armando Fox, Dan Garcia, Jitendra Malik, Dave Patterson, Sanjit Seshia and Dawn Song

Electrical Engineering & Computer Science Department, UC Berkeley

Abstract
EECS faculty discuss their experience with MOOCs and pose research challenges in aiding education with computer technology.

Biographies
Pieter Abbeel received a BS/MS in Electrical Engineering from KU Leuven (Belgium) and received his Ph.D. degree in Computer Science from Stanford University in 2008. He joined the faculty at UC Berkeley in Fall 2008. His research focuses on robotics, machine learning and control.

Armando Fox is a Professor-in-Residence in the EECS Department at UC Berkeley and a co-founder of the UC Berkeley RAD Lab. As of Fall 2012, he has been named half-time Academic Director of the Berkeley Resource Center for Online Education, helping UC Berkeley to build an infrastructure that will support the campus’s many online education initiatives.

Dan Garcia joined the CS faculty at UC Berkeley in the Fall of 2000. He is currently mentoring over seventy undergraduates, spread across four groups that he founded in 2001, centered around his research and development interests in computer graphics, Macintosh OS X programming, combinatorial game theory and computer science education.

Jitendra Malik joined the EECS faculty in January 1986, where he is currently the Arthur J. Chick Professor in the Computer Science Division, Department of Electrical Eng. and Computer Sciences.

David Patterson is the Pardee Professor of Computer Science at the University of California at Berkeley, which he joined after graduating from UCLA in 1977. Dave’s research style is to identify critical questions for the IT industry and gather inter-disciplinary groups of faculty and graduate students to answer them.

Sanjit Seshia is an Associate professor in EECS, UC Berkeley. His research interests are on the UCLID verification system pioneered the area known as satisfiability modulo theories (SMT) and SMT-based verification.

Dawn Song is an Assistant Professor at University of California, Berkeley. Her research interest lies in security and privacy issues in computer systems and networks.

For more information about EECS Colloquiums please see: http://www.eecs.berkeley.edu/Colloquium/