

Findings from an ACM Strategic Summit on Computing Education in Community Colleges

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ABSTRACT

At the request of and funded by the US National Science Foundation, the ACM Committee for Computing Education at Community Colleges (www.acmcecc.org) conducted the *Strategic Summit on the Computing Education Challenges at Community Colleges*. The *Report of Findings* from the Summit will provide the impetus for future grant proposals to available funding sources. The objective is to share the *Report of Findings*, including those elements that are most relevant to faculty at four-year colleges and universities. The presenters will facilitate a discussion on an individual basis with computer science educators on topics from the report centered on the major challenges and associated opportunities. Attendees should come away from the session with ideas for crafting future funding proposals.

Categories and Subject Descriptors:

A.0 [Conference Proceedings]

K.3.2 [Computer and Information Science Education]

General Terms:

Standardization, Management

Keywords:

Summit, Challenges, Opportunities, Community, College, Two-Year, Education.

1. BACKGROUND

The *Report of Findings* titled “Digitally Enhancing America’s Community Colleges: Strategic Opportunities for Computing Education” details the findings from the *Strategic Summit on the Computing Education Challenges at Community Colleges*. To ensure a broad view, a diverse group of thirty-three professionals from two-year colleges, four-year colleges, high schools, industry and government were invited to participate in the *Summit*. These experts engaged in spirited discourse framed by three themes: Perceptions, Preparation and Environments. To seed the breakout discussions, designated panelists delivered succinct presentations from three perspectives, Employer, Faculty and Student, after which the participants assembled into small groups for extended periods of focused interaction and exchange of ideas. All presentations and breakout discussions were digitally recorded and served as the foundation for producing the final report.

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ITiCSE’11, June 27–29, 2011, Darmstadt, Germany.
ACM 978-1-4503-0697-3/11/

2. FINDINGS

The *Report of Findings*, elucidated by actual quotes captured during *Summit* deliberations, identifies twenty specific challenges and associated opportunities for post-secondary education with the express intent of providing a foundation and impetus for future grant proposals, initiatives and partnerships led by community college computing faculty and academic administrators. Many of the findings are applicable to baccalaureate-granting colleges and universities, especially those accepting transfer students from associate-degree granting institutions. A reading of this report reveals the following overarching themes:

- Active collaboration is required among the various sectors of education (high school, two-year colleges, four-year colleges and universities), together with business and industry, to address the challenges identified and achieve the opportunities noted.
- Well-defined computing nomenclature, curricula, assessment techniques and educational pathways are required to position the computing disciplines as first choice career options for two-year college students and to facilitate student achievement.
- The unique characteristics of computing education in community colleges require approaches and solutions specifically tailored to this field of study.

A few of the findings include:

- Embedding Computing Education in Our Changing Society
- Embracing Anytime, Anywhere Computing Education
- Applying Learning Research to Computing Education
- Actualizing Pathways in Computing Education
- Demystifying Computing Disciplines and Professions

3. FOLLOW-UP OPPORTUNITIES

The presenters will discuss appropriate findings and suggest possible follow-up opportunities with interested computer science educators. Attendees will come away from the poster session with ideas for crafting grant proposals and other initiatives at their colleges and universities. Although the *Summit* has ended, the discussion continues via an interactive blog. Feel free to join the ongoing conversation at www.acmcecc.org/capspaceforums/.

Printed copies of the *Summit Report of Findings* and the accompanying strategic planning materials will be provided at the poster session. These materials may also be obtained from the Committee’s website, www.acmcecc.org/summitreport/.