

Community College Corner

Upcoming Computing Education Summit for Community Colleges

Elizabeth K. Hawthorne

The Two-Year College Education Committee (TYCEC), a standing committee of the ACM Education Board, received funding from the National Science Foundation to conduct a *Strategic Summit* on the computing education challenges facing community colleges over the next five years. This upcoming *Strategic Summit* will be held in Philadelphia, April 28 through 30, 2010.

The *Strategic Summit* will bring together from all over the United States a diverse group of experts from two-year colleges, four-year colleges, high schools, industry, and government to engage in focused discussions to identify the grand challenges confronting community college computing programs, encompassing computer science, computer engineering, software engineering, information systems, information technology, and information assurance and security. Thought-provoking presentations from three different perspectives – employer, student, and faculty – will seed lengthy round table discussions. The TYCEC acknowledges that not every compelling issue can

be raised at this two-day *Strategic Summit*, but strongly believes many common difficulties in computing education arise from root causes contained within the three overarching themes of perceptions, preparation, and environments.

The *Perceptions* theme will address the image that employers have of associate-degree completers; that graduates have of the workplace; that students have of computing; and that faculty have of their role. All these perceptions, whether real or imagined, have a dramatic impact on the teaching and learning environment. Some notions in this theme may include:

- Employer perception of graduates; hiring practices and biases; student workplace experiences upon entering the workforce
- Student perceptions of the computing disciplines; the impact on student recruitment, retention, success and completion rates; participation by underrepresented groups
- Faculty perceptions of “what we should teach” and how to keep it relevant; of industry needs; of effective pedagogy; of the role of IT as a service discipline

The *Preparation* theme will deal with the specific skills and behaviors of graduates required by employers; the remediation needs and concerns for students entering college; and the effective student and program assessment techniques. These ideas are crucial underpinnings to computing curricula. Some concerns grouped under this theme may include:

- Employer prescriptions for the attributes of their most successful employees
- Student preparation for college-level coursework; articulation (2+2+2) issues
- Faculty professional development; assessment of student learning and program outcomes

The *Environments* theme will tackle the context of the present and forthcoming workplace; the teaching and learning settings as well as the resources for faculty and students; and the varying characteristics of online worlds. Such matters are vital to understanding and anticipating future needs. Some issues in this theme may include:

- Employer projections for computing careers and emerging technologies; what it will mean to be a “computing professional” in the future
- Student learning environments; individual learning styles; content delivery methods; textbook/e-book/online tutorials; Web 2.0 applications; virtual teams and collaborative learning
- Faculty support/collaboration; pedagogy and teaching strategies; communities of professional practice; communities of research

The goal of the *Strategic Summit* will be to identify and articulate insights into the concerns being expressed nationally about the breadth of issues prevalent in

computing education at two-year colleges. However, formulating remedies to these issues will not be the focus of this *Strategic Summit*. Instead a set of major challenges will be published in order to spur initiatives and grant proposals in response to national needs. The proceedings from the *Strategic Summit on the Computing Education Challenges facing Community Colleges* will be broadly disseminated by December 2010 through the American Association for Community Colleges, the Association for Computing Machinery and other circulation channels.

Stay tuned . . .

Elizabeth K. Hawthorne
Chair, ACM Two-Year College
Education Committee

