ACM’s Engagement in Education Policy

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• ACM’s Education Portfolio
• Origins of Engagement
• What We Found
• Engaging in the States
• Computer Science Education Week
• A New Level of Engagement
ACM’s Education Portfolio
The Context ACM Sets

- Education has been a fundamental part of ACM for decades
  - We describe ACM as an “educational and scientific society”
  - The ACM tagline states: “Advancing Computing as a Science and Profession”
  - ACM education efforts effectively defined computer science with Curriculum ‘68
- ACM’s current priorities
  - Revitalize CACM
  - Improve the image and health of the field and profession
  - Be international
ACM Educational Activities - Summary

- Subunits focused on education
  - ACM Education Board
  - ACM SIGCSE
  - ACM SIGITE
  - Computer Science Teachers Association (CSTA)
  - ACM Education Council
  - ACM Education Policy Committee
  - SIG with education agendas:
    - SIGPLAN
    - SIGGRAPH
    - SIGCHI
Origins of Engagement
Emergence of the ACM EPC

• The context
  – A confluence of several factors and reports raising concerns about the ability of the US to stay globally competitive
  – Increased focused on the need to invest in science/math education
  – Serious concern that computing and computer science would be left behind or misunderstood in discussions focused on investment in STEM education

• The data
ACM Education Policy Committee

• Established by ACM Council in July 2007
• Members
  – Bobby Schnabel (Chair), Indiana University
  – Stacey Armstrong, AP Computer Science Teacher Cypress Woods HS
  – Robert D. Campbell, CUNY Graduate Center
  – Fred Chang, University of Texas
  – Joanna Goode, University of Oregon
  – Susan Rodger, Duke University
  – J Strother Moore, University of Texas
  – Mark Stehlik, Carnegie Mellon University
  – Chris Stephenson, Computer Science Teachers Association
  – Ex officio
    • Eugene Spafford, Purdue University (Chair, USACM)
    • John White, ACM CEO
    • Cameron Wilson, ACM Director of Public Policy
ACM Education Policy Committee

- Organizations represented on the ACM EPC
  - CSTA
  - NCWIT
  - SIGCSE
  - Two-year colleges
  - CRA
  - High school computer science teachers
  - AP computer science community

- This reach enables the ACM EPC to speak/advocate on behalf of the community with a single voice
EPC’s Initial Agenda

• Developed Computer Science Education Week
• Developed the Computer Science Education Act
• Reached out to numerous agencies to:
  – clarify that K-12 CS should be based on conceptual knowledge and adopted standards by the community
  – clarify that CS should be eligible to participate in “STEM” focused programs
• Reached out to national groups (CCSSO, NGA, Achieve, NRC, NSTA, etc.) to define what CS education is
• Discussed UK issue
• Wrote Running on Empty
A New Level of Engagement
Strategy for Reform

National Profile  Media  Federal Policy

CS Education Reform

Curriculum  Teachers  State/Local Policy
– a non-partisan advocacy coalition of associations, corporations, scientific societies, and other non-profits that strive to elevate computer science education to a core academic subject in K-12 education, giving young people the college- and career-readiness skills necessary in a technology-focused society. CinC encourages awareness building activities, policy changes, and research at national, state, and local levels to build a strong foundation for the future of computer science instruction. It will engage federal and state policy makers, educators, the public, and the media to meet these goals.
Strategy for Reform

National Profile  Media  Federal Policy

CS Education Reform

Curriculum  Teachers  State/Local Policy
Computing in the Core

Three strategic goals:

#1. Influence Federal Policy to Strengthen K-12 CS Education
#2. Raise Awareness (CSEdWeek)
#3. Influence State Policy to Strengthen K-12 CS Education
Next Steps for CinC

#1. Fed Policy:
- ESEA is Hot! Hot! Hot!
  • Visits ... lots of visits
  • Hill briefing on March 1
  • Retooling the CSEA

#2. Awareness:
- CSEdWeek ’11:
  • Set partners and vision
  • ID resources
  • Broaden Engagement
- Continue RoE Outreach
- Specific communications projects focused on building useable resources

Overarching Goal:
• Expand our reach, bring more partners into CinC

Where we can:
- Texas
  • CSTA Leadership Cohort
- Focused outreach
  • CA is interesting
- Looking strategically for other engagement (end of ’11, early ’12)
What You Can Do

• Advocacy -- start small
  • Simple message -- seeking to ensure students at K-12 have access quality computer science education
  • Gather intel, by talking to
    • Your local school board
    • Higher ed
    • K-12; where does CSTA have assets
    • Talk to your university education department

• Get involved with CinC
  • [http://www.computinginthecore.org/get-involved](http://www.computinginthecore.org/get-involved)
• Plan to do something for CSEdWeek 2011
• Looking for more partnerships, particularly corporate
What You Can Do

• Advocacy -- Keep it simple, Keep it small
  – Simple message -- seeking to ensure students at K-12 have access quality computer science education
  – Gather intel, talk to:
    • Your local school board
    • Higher ed
    • K-12; where does CSTA have assets?
    • University education department
  – Use existing materials
    • Running on Empty -- www.acm.org/runningonempty
    • Toolkits -- NCWIT/CSTA/CinC/CSEdWeek Sites

• Get involved with CinC
  – http://www.computinginthecore.org/get-involved

• Plan to do something for CSEdWeek 2011