Name of Society/Organization: Computer Science Teachers Association (CSTA)

URL: csta.acm.org

What is the mission of your organization?
The Computer Science Teachers Association is a membership organization that supports and promotes the teaching of computer science and other computing disciplines. CSTA provides opportunities for K-12 teachers and students to better understand the computing disciplines and to more successfully prepare themselves to teach and learn.

Please describe the membership of your organization: number of members, demographic profile, and common interests.
CSTA has 6439 members in 101 countries, 5232 in the US. The overarching goal of CSTA is to create a community of individuals and organizations working together to address critical issues in K-12 computer science education.

How does your organization influence computing education?

**Promotes a Better Understanding of Computer Science:** Provide visibility, influence policy, and generate resources that illuminate computer science as an essential academic discipline.

**Develops Research and Resources:** Conduct original research and serve as a direct-to-practitioner channel for the dissemination of research and resources that address current knowledge gaps.

**Supports National Standards:** Facilitate the implementation of national curriculum and teacher certification standards to support consistent excellence in learning and teaching.

**Supports Teacher Excellence:** Provide multiple levels of professional development to improve teachers’ technical knowledge and pedagogical skills.

**Opportunities:** Promote computer science as a field of study and as a career destination that provides a wealth of opportunities to students regardless of their gender, race, or socio-economic status.

What do you see as the most significant three challenges facing computing education in order to achieve the goals that your organization wants for computing education?

- Decisions about curriculum are made at the local level (there are no national curriculum standards for any academic discipline), so what students learn varies enormously from school to school and even from classroom to classroom
- For computer science teachers, the challenge of becoming and remaining exemplary educators is exacerbated by a system of pre-service education and teacher certification that is so disconnected from the discipline of computer
science and the needs of teachers and students that it is harmful to students, schools, and our economy.

- The critical lack of relevant, pedagogically-sound, ongoing professional development for computer science teachers makes it virtually impossible for them to remain current in the discipline.

What are the top three things that should be done to improve computing education?

- Educate all stakeholders on what computer science is and is not. Parents, state/district/local administrators and policy makers need to understand that computer science is not equal to putting computers in schools
- Need to educate legislators, and congressional committees about the link between supporting K-12 computer science education and international economic issues
- University/college faculty need to work closely with K-12 teachers on articulation of courses that will engage students and excite them about pursuing careers in computing.

If all the groups coming to this meeting got behind a common goal or strategy, what would you suggest that it would be?

There are currently many efforts going on in parallel; we need to pool resources to effect change at the top. All of the great local efforts in school districts and some universities/colleges can’t sustain over time without a national vision that makes clear the importance of computer science as a discipline.

What concrete outcome would you hope this meeting to achieve?

A Sputnik level of motivation that could serve as a message with strategies for getting that message out quickly to all stakeholders.

What would you want representatives from your organization to learn from the summit?

Whether there is a possibility of community consensus across educational levels to provide, promote, and support a comprehensive vision of computer science education that recognizes the unique needs of students at various levels and acknowledges the expertise of those who most closely serve those students.

What would help your organization the most at this workshop?

To leave with a clear understanding of next steps and who is doing what to support the concrete outcome for meeting our common goal.

We will be able to invite at most two representatives from each participating society/organization. Could you please provide names and short bios of two representatives from your organization?
Gail Chapman is Director, Leadership and Professional Development at the Computer Science Teachers Association. She taught high school for 15 years and worked on the AP Computer Science program at both ETS and College Board.

Stephanie Hoeppner teaches computer science at Clermont Northeastern High School in Ohio. She is a member of the CSTA Leadership Cohort focused on computer science advocacy and outreach.

Sample bios of meeting PIs:

Dr. Mark Guzdial is a Professor at Georgia Tech's School of Interactive Computing and is Vice-Chair of the ACM Education Board. He is a member of the leadership team for NCWIT and of the advisory board for the Anita Borg Institute.

Dr. Jane Prey is a Senior Research Program Manager in the External Research group at Microsoft Research and is a member of the ACM Education Board. She spent 11 years as a faculty member in the Department of Computer Science at the University of Virginia. She served a two year rotation as a program officer in the National Science Foundation's CCLI program.

Dr. Heikki Topi is an Associate Dean at Bentley College and is a member of the ACM Education Board. He was one of the leaders in developing the ACM/AIS Information Systems undergraduate curriculum. He is a Senior Editor for *Information Systems Management*. 