

Your CSTA
Membership



Voice

The Voice of K–12 Computer Science Education and its Educators

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CS&IT: Celebrating 10 Years of Success

Chris Stephenson

THE 10TH ANNIVERSARY of CSTA's Computer Science & Information Technology Symposium (CS&IT) was not only a remarkable success, but a signal of big changes for the conference and for CSTA.

Since the first gathering of 70 teachers in Atlanta ten years ago, CS&IT has grown to be the major annual professional development event for high school computer science and information technology teachers. And this year more than 250 registrants spent the day in the very heart of the computing world...at Google headquarters in Mountain View, CA.

Sharing the working space along with Google's extraordinarily friendly staff, teachers attended sessions presented by world-level authorities and peers alike. Eugene Spafford, a national expert on computing and cybersecurity from Purdue University, opened the conference with a keynote on how computing is pushing us to think in new ways and at the same time creating profound challenges with regard to privacy and security. This issue of the power of CS was echoed by Megan Smith, Vice President, New Business Development, and General Manager, Google.org, whose closing keynote focused on the power of computing to improve lives in the global community.

Between these two powerful presentations was a jam-packed day of practical and thoughtful sessions that included topics such as: Computer Science, Game Development and the XNA Game Studio; Programming Contests and Competitions; What's Going on with AP CS: The CS

10,000 Teachers Project; Web that Works; Using Greenfoot to Motivate Students; Digitizing the World: An Approach to Teaching Computational Thinking; Building a 21st Century School with Google Apps; and many more.

In addition to the exciting location of this year's conference, there were many behind-the-scenes changes that CSTA President Michelle Hutton says are indicative of CSTA's wish to make the conference both more engaging and more accessible. This year, for the first time, more than half of the sessions were selected based on a new proposal submission and review process. "We believe that opening up our agenda to proposals provided important opportunities for peer-to-peer learning and for new speakers with new ideas," she said.

As in previous years most of the presentations will be available for download from the conference site (www.csitsymposium.org). This year, however, the majority of the sessions were videotaped and so teachers who were not able to attend the conference will be able to view the sessions.

And this year for the first time, CSTA was able to provide sign language interpreters (American Sign Language) for both keynotes, which, according to planning committee member Betsy Frederick, was "our way of showing that we are beginning to think more expansively about how we live our commitment to accessibility for all of our conference attendees and CSTA members."

The CS&IT Conference was hosted by Google but was *continued on page 2*

CSTA thanks to

**Myra Deister
Mindy Hart
Karen Lang
Margot Phillipps**

for their hard work packing the CS&IT attendee bags.

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CS&IT: CELEBRATING 10 YEARS OF SUCCESS

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also co-sponsored by Microsoft Research and The Anita Borg Institute. Microsoft has long been a supporter of the annual conference and was its first corporate

sponsor. The Anita Borg Institute became a sponsor this year as part of a wider relationship with CSTA that includes support for the K-12 Computer Teachers Equity Workshop held at the 2009 Grace Hopper Celebration of Women in Computing.

Membership Survey Results

Dave Burkhart

EVERY TWO YEARS CSTA conducts a survey to gauge members' experiences and satisfaction with their CSTA membership. CSTA uses this information to examine how members are utilizing their membership and to update the benefit offerings to better reflect needs.

More than a thousand members completed this year's survey. Here is what they told us.

- The CS&IT Symposium was the most visible CSTA professional development event.
- 91% were pleased with the information in the Voice newsletter.
- 86% reported that it is very important for CSTA to provide curriculum materials.
- 83% felt that CSTA provides value to them as a professional.
- 81% of those who read the blog were satisfied with the content.
- 79% felt that it is very important to belong to a group dedicated to excellence in K-12 CS education.

While these numbers are very impressive, it was clear from their comments that many of our members are not as aware of membership benefits as we would like

them to be. Increasing member awareness of all of the benefits will be one of the objectives for the membership committee over the next two years.

During the recent CS&IT Symposium held at Google Headquarters in July, we highlighted the following five CSTA member benefit values. How aware are you of them?

- CSTA *Advocate* blog: where you can find up-to-date news, views, and ideas about the CS education.
- CSTA *Voice*: your bi-monthly newsletter available online and delivered to each member in the mail.
- CSTA classroom resources: printable materials include customizable posters and brochures to promote your CS program.
- Professional development: offered by CSTA and its sponsoring partners, including the CS&IT symposium and the TECS workshops.
- CSTA curriculum resources: various classroom tools. *The ACM Model Curriculum for K-12 Computer Science* has *Outlines and Objectives* documents for Level 1 (K-8), Level 2 (9-10), and Level 3 (11-12). *Exploring Computer Science* is a year-long high school introductory

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CSTA Voice is a quarterly publication for members of the Computer Science Teachers Association. It provides analysis and commentary on issues relating to K-12 computer science education, resources for educators, and information for members. The publication supports CSTA's mission to promote the teaching of computer science and other computing disciplines.

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class complete with lesson plans. The CSTA *Source* repository has recently been updated and features new lesson plans, modules, and code samples.

CSTA membership is free and it provides terrific member benefits! Make the most of it by exploring your membership benefits on the CSTA website (csta.acm.org).

Computer Science for All

A New Graduation Requirement in Springfield Township

Tammy Pirmann

THE SCHOOL DISTRICT OF SPRINGFIELD TOWNSHIP is proud to announce that computer science (CS) is a new graduation requirement for the class of 2014. The course, Computer Science in the Modern World, is based on the *ACM Model Curriculum for K-12 CS, Level II*, and will make its debut with the 2010 freshman class as a part of the standard ninth-grade schedule.

This accomplishment was neither an overnight success story nor a single-handed achievement. Instituting a CS requirement took several years and the efforts of many people.

When I began my teaching career in 2005 at Springfield, the district offered Web Design and AP CS A, in addition to a required course in technology called Tech 9. Tech 9 was basically an applications course. Even though I felt isolated as a “singleton” CS teacher, I cultivated strong working relationships with other professionals in the building, including my school-appointed mentor and the gifted program support teacher. At a Carnegie Mellon University AP CS professional development workshop I networked with other CS teachers and learned ways of bringing CS topics to life for my students.

During my second year of teaching I learned about CSTA through PACSE, a group of CS educators in the Philadelphia area which later became a CSTA chapter. Through the resources on the CSTA website, I refined my ideas of what a CS program should include. We introduced Alice programming into the ninth-grade course and placed more emphasis on Access and less on other applications.

In 2007 our teachers and the elementary technology specialists mapped our current curriculum to the *ACM Model Curriculum for K-12 Computer Science*. It was discovered that the kindergarten through

grade-five standards would be met by the end of grade four and the decision was made to create a new technology report card to assess these expectations.

The middle school IT teacher took responsibility for the sixth- through eighth-grade standards and added troubleshooting, ethics, and logic to the existing computer applications courses. It turned out, however, that the high school curriculum was in most need of change.

During 2007-2008, I was asked by our Assistant Superintendent to develop a class for the gifted program that would meet the IT graduation requirement and also include a robotics unit. With the help of the *Model Curriculum*, I found opportunities to incorporate robotics and engineering concepts into the course. I also added literature units in science fiction on a variety of topics, including artificial intelligence. The new course, Quest: Future Studies, was very successful. The students enjoyed it, even though most of them rated it as a “hard” class, and parents were happy with the level of rigor. About half of the students indicated that they would take another CS course, based on their experiences in this one.

I had given a copy of the *Model Curriculum* to various district and building administrators at various points over the past several years and it began to pay off. With impending changes in our district organization, the state and national push for STEM education, the success of the Quest: Future Studies course, and the new “CS Education Week,” the time was right to push for the adoption of the *Model Curriculum* as our district curriculum.

In January of 2010 our proposal was presented to the school board. Because of the curricular changes that have been successfully implemented over the past five years, securing board *continued on page 4*



Let us know if
your contact
information changes.

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Contribute to the CSTA Voice

The editorial board of the **CSTA Voice** is dedicated to ensuring that this publication reflects the interests, needs, and talents of the **CSTA** membership. Please consider sharing your expertise and love for computer science education by contributing newsletter content.

Potential writers for the **CSTA Voice** should send a brief description of the proposed article, estimated word count, statement of value to members, author's name and brief bio/background info, and suggested title to the editor at: cstapubs@csta.acm.org. The final length, due date, and title will be negotiated for chosen articles. Please share your knowledge.

Volunteer today!

The **CSTA Voice** welcomes your comments.

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Letters to the Editor are limited to 200 words and may be edited for clarification.



ACM founded CSTA as part of
its commitment to K-12
computer science education.

**What are
you doing for
CS EDUCATION
WEEK?
December 5–11**



- ▶ **Wondering
what others
are doing?**
- ▶ **Wanting some
ideas?**
- ▶ **Needing
resources?**



VISIT

www.csedweek.org

**MAKE YOUR
PLANS NOW!**



**TELL THE
WORLD!**



www.csedweek.org
[/connect-with-us](http://www.csedweek.org/connect-with-us)

COMPUTER SCIENCE FOR ALL

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approval for a new required course called Computer Science was not as difficult as it might first appear.

If your school district has any technology requirement at all, you may want to adopt this slow-and-steady method. Conversely, if your district has no technology requirement, proposing a required CS course could position your district as a technology leader.

My best advice to teachers and schools who wish to raise the technology standards for students is to:

- engage with key players at all levels;
- keep talking about CS;
- put the *Model Curriculum* and the *The New Educational Imperative: Improving High School Computer Science Education* documents into the hands of district influentials and decision makers; and
- incorporate exciting CS topics into your classes.

CSTA Chapters

Keys to Supporting and Promoting CS Education in our Communities

Fran Trees

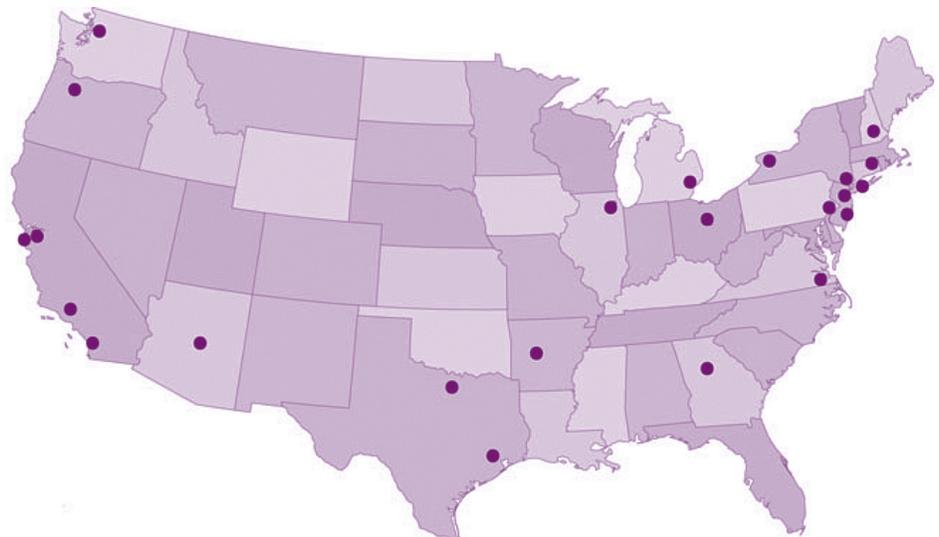
“AS PART OF ITS COMMITMENT to meeting the needs of CSTA members and developing a strong community of computer science (CS) educators, CSTA supports the development of regional CSTA chapters. A CSTA chapter is a local branch of CSTA designed to facilitate discussion of local issues, provision of member services at the local level, and to promote CSTA membership on the national level.”

A CSTA chapter affords the opportunity for dialogue among local computing educators with the goals of supporting, promoting, and improving K–16 CS education. CSTA chapter members

include K–12 teachers, two- and four-year college and university faculty, and others involved or interested in CS education. Together, these dedicated CS educators promote and support professional development for computing teachers, and provide computing activities beyond the classroom setting for local K–12 students. To broaden perspectives in CS, chapters also strive to engage community and industry representatives by providing opportunities for sharing professional experiences with teachers and students.

CSTA presently has chapters in Arizona (Phoenix area), Arkansas, California (San

LOCATIONS OF CSTA CHAPTERS IN THE US



Diego, Silicon Valley, Southern CA, and Golden Gate area), Connecticut, Georgia, Illinois (Chicago area), Michigan, New Hampshire, New Jersey (Northern NJ and Southern Shore), New York (Western NY, Long Island, and Lower Hudson Valley), Ohio, Oregon, Pennsylvania (Philadelphia area), Texas (Houston area and Dallas/Fort Worth area), Southeastern Virginia, and Washington (Puget Sound area).

Our current chapters are active with their local communities in promoting outstanding CS education in many ways. Chapters have conducted a variety of activities over the past year.

- Career days
- Computer contests
- Diversity activities
- Recognition of local teachers
- Summer computing camps
- CS Education Week promotions
- Computing events for Girl Scouts
- Computer fairs and “playgrounds”

- Professional development workshops
- Strategies for implementing computing curricula
- Guest speakers on CS education issues
- Computing activities in elementary and middle schools
- Distribution of new technologies and curriculum modules for XNA Game Development, Alice, Greenfoot, Phidgets, Scratch, and Python

Our CSTA chapter members love to “chat” about CS education with other local CS educators. We enjoy sharing. We enjoy learning. We support and promote a sound CS education locally and nationwide. We invite you to join us! If you would like to become involved by participating in one of our existing CSTA chapters, or perhaps developing your own local chapter, contact information can be found at www.csta.acm.org/About/sub/CSTAChapters.html.

Highlights from Our Chapters

Puget Sound

- Girls interested in STEM careers attended Puzzlehunt—a day-long activity to network with women in STEM careers, work in teams to solve puzzles, and network with students in STEM classes.
- CS students participated in programming contests.
- Visit www.pscsta.org to learn more about Puget Sound CSTA.

Oregon

- Sponsored week-long CS4HS workshops focusing on CS within math and science.
- Teachers attended a one-day workshop which highlighted best practices in attracting and retaining girls and under-represented groups into CS programs.
- In a partnership with TechStart, six mini-grants (\$500-\$1000) were awarded to schools to implement programs for attracting and retaining girls.
- Visit www.techstart.org/classroomequity to learn more.

Western New York

- 2009 Fall Conference was made possible through support of both Erie Community College and RidgeSoft. The program included presentations on robotics, cybersecurity, creating virtual worlds, computer literacy, out-of-class events, and programs for professional development.
- The chapter is working to create a website to offer resources on computing careers and educational opportunities.
- Learn more about CSTA Western New York at groups.google.com/group/wny-csta.

Ohio

- CSTA Ohio members presented sessions on CS Day at eTech Ohio.
- Games by Teens activities were led by Dr Jay Shaffstall, Muskingum University.
- Students in grades 3–8 attended Tech Corps summer camp where they learned basic CS concepts and robotics, as well as Web, game, and Android application development.

Meet the Authors

Dave Burkhart

CSTA Membership Committee Chair
Dave teaches technology at Sheridan High School in OH and is an adjunct faculty member at Zane State College. He is also the K–8 Teacher Representative to the CSTA Board.

Ruthe Farmer

Director of Strategic Initiatives, NCWIT

Ruthe has focused her efforts on increasing girls' participation in technology and engineering since 2001. At NCWIT she provides strategic planning and direction, fund development, and cultivation of new partnerships for NCWIT.

Michelle Hutton

CSTA President

Michelle previously served CSTA as vice president and chair of the Equity Committee. She taught CS at The Girls' Middle School in Mountain View, CA for the past ten years.

Tammy Pirmann

Springfield Township, PA

Tammy has taught CS for 5 years and led the successful effort to add CS as a graduation requirement for the School District of Springfield Township. She is President of CSTA-Philadelphia Area and is working to improve CS teacher certification in PA.

Seth Reichelson

Educator, Ocoee HS, FL

Seth teaches AP Physics, AP CS, and Engineering. He has sponsored both the national champion SECME engineering team and the undefeated Ocoee Computer Programming Team.

Fran Trees

Drew University, NJ

Fran is a lecturer of CS and mathematics at Drew and serves as the CSTA Chapter Liaison.

Chris Stephenson

CSTA Executive Director

Chris Stephenson is a long-time advocate for K–12 CS education. She is the author of several textbooks, white papers, and scholarly articles on CS and adaptive technologies.

Dorothy Weiss

Educator, Dresher, PA

Dorothy teaches at a Sandy Run Middle School. She began her teaching career as an art educator and worked in the graphic art software industry for fifteen years before returning to the classroom to teach computing.

Let us know what you are doing! cstapubs@csta.acm.org

Curriculum in Action

Big Cats Breaking Barriers in CS

Seth Reichelson

Computer science (CS) at Ocoee High School has traditionally been a male-dominated course. To redefine its image and encourage more girls to enroll in CS classes, we embarked upon a joint project to create an environmental simulation of the African savannah we named “Big Cats.”

The Big Cats project involved a team of students from three schools in Orlando FL: Ocoee High School, Apopka High School, and Bear Lake Elementary School who created an artificial intelligence-based simulation involving hunters, pack dynamics, and landscape changes. A hundred thousand lines of constantly shifting code tracked weather, health, and breeding.

This project involved over 250 people, including 40 women. Ten female students from Ocoee High School helped write the code, and 10 students from Apopka High School’s National Art Honor Society collaborated with middle and elementary classes to produce the artwork and animation for every part of the program. The Ocoee High School band created the music for the entire program.

The collaboration of schools and courses introduced young students to CS as an exciting and creative field and dispelled the myth of CS as a boys’ subject. During the software development, we also introduced the students at all of the schools to the female programmers who led the Ocoee High’s programming team. One of these programmers is also an accomplished ballerina who has performed in New York City and Miami, thus proving to all of the student participants that you can succeed in a variety of endeavors as a computer scientist.

Spotlight

Calling all Tech-Savvy Young Women Coders, Gamers, and Web Divas!

Ruthe Farmer

The National Center for Women & Information Technology (NCWIT) is seeking applications from young women for the NCWIT Award for Aspirations in Computing. The 2011 competition is open to any U.S. high school female (grades 9–12). Applications will be accepted beginning September 6, 2010, and must be submitted online at www.ncwit.org/award no later than 11:59 PM ET on October 15, 2010.

The NCWIT Award for Aspirations in Computing acknowledges the computing aspirations of young women, introduces them to leadership opportunities in the field, and generates visibility for women’s participation in computing-related pursuits. Award-winners are selected for their outstanding aptitude and interest in information technology and computing, leadership ability, academic history, and plans for post-secondary education.

Each national award winner will receive:

- \$500 in cash;
- A laptop computer;
- A trip, including airfare for nonlocal winners and an accompanying parent or legal guardian to attend the Bank of America Technology Showcase and Awards Ceremony held in Charlotte, NC, March 2011;
- An engraved award for both the student and the student’s school;
- Opportunity to participate in a mentorship program with Bank of America associates.

With support from Microsoft Research and the Motorola Foundation Innovation Generation grant program, local Affiliate Award programs will be available in various locations nationwide. A complete list of Affiliate Award programs is available at www.ncwit.org/award. Affiliate Award prize packages vary. All Affiliate applicants also have the opportunity to apply for the national award. Bank of America sponsors the national Award for Aspirations in Computing.

“Encouraging young women’s interest in technology careers is critical; our workforce needs their creativity and their innovation,” said Lucy Sanders, CEO and Co-founder of NCWIT. “This award helps us recognize and encourage talent that might otherwise be overlooked.”

Teachers are encouraged to share this opportunity with their female students. A promotional video on the Aspirations Award, as well as downloadable flyers and posters, are available at www.ncwit.org/award.

NCWIT is a coalition of over 200 prominent corporations, academic institutions, government agencies, and non-profits (including CSTA) working to increase women’s meaningful participation in information technology. To learn more visit www.ncwit.org.

Volunteer Network

Participate in Your CSTA

Do you want to make a difference in the computer science education? Are you looking for a way to grow professionally? Would you like to meet and network with other CS educators? Getting involved in CSTA as a committee volunteer is a great way to accomplish all three!

CSTA committees are responsible for a large variety of accomplishments and are eager to hear your ideas and to involve you. Look through the list below to find the one that fits your interests. Let us know which committee you are interested in and we will help you get involved. cstapubs@csta.acm.org

- Certification and Standards
- Curriculum
- Equity International
- Membership
- Professional Development Research
- Voice Newsletter
- Chapter Task Force
- Computational Thinking Task Force

Classroom Tools

A New Poster Ready for Your Classroom

Michelle Hutton

CSTA is excited to announce a new poster for your classroom. The CS and Sports poster, timed to be available for Computer Science (CS) Education Week, highlights the role of CS in sports. From the computers’ data-crunching ability that has revolutionized professional sports to the inspiration of soccer-playing robots in the Robocup competition, CS permeates sports in many ways on many levels; Olympic swimmers wear swimsuits created with nano-technology and amateur golf players use swing-analysis software to improve their game.

Kate Starbird, who played basketball for Stanford University while working on her CS degree, is featured on the new poster. After graduation she played professionally for the ABL, WNBA, and in Spain. After retiring from basketball, Kate returned to school as a PhD student in CS. She is a role model for the changing image of computing.

You will receive information on how to order your free CS and Sports poster in your e-mail inbox from the CSTA listserv.

College Corner

Purdue University

Editor’s note: *This dialog with Mindy Hart, K–12 Outreach Coordinator, Department of Computer Science, Purdue University, is a continuation of our series of interviews with CSTA institutional members. Please share with your students these details about the CS programs at Purdue University (www.cs.purdue.edu).*

Purdue University is located in West Lafayette, Indiana. It is a land-grant institution with an enrollment of nearly 40,000 students. The Purdue Computer Science (CS) Department offers a Bachelor of Science in CS, a minor in CS, and a 5-year combined BS/MS degree. At the graduate level, students can earn an MS or PhD in CS. Additionally, there are collaborative programs in Computational Life Sciences, Computational Science and Engineering, and a combined MS in Statistics and CS.

CSTA: What draws students to your program and what keeps them there?

Hart: Many students are drawn to our program because of the national recognition our program receives, the new Lawson CS building, and the jobs and opportunities available in the field. Students stay in the program because of the tight-knit social community within the department, a CS curriculum built upon fundamentals, and the availability of internship and job opportunities.

CSTA: What skills can students acquire before college that will help them succeed?

Hart: Student success is enhanced with time management, algorithmic thinking, communication, and team work skills. Programming experiences, as well as a strong background in mathematics, are additional pluses.

CSTA: Tell us about innovative majors or programs of study.

Hart: There are many opportunities within the CS department for students to customize their learning experiences. Currently there are courses at the undergraduate level that focus on robotics, Android phones, and concurrent programming. The most exciting innovations are the new curricular tracks available to students starting in the fall of 2010. These tracks allow students to focus their electives in the fields of Computational Science, Foundations of Computer Science, Computer Security, Software Engineering, Systems Programming, and Computer Graphics and Visualization. Additionally, there is a CS Honors track for students who do exceptionally well and students can participate in learning communities or study abroad.

CSTA: What cool careers are your graduates prepared for?

Hart: Our students are prepared for careers in traditional CS fields such as software engineering, computer security, and web-based technologies. We also have a very active Corporate Partners program that links our students to corporations. In addition to traditional opportunities, medical, defense, financial, and communications companies all recruit our students.

CSTA: What distinguishes your school and program from others?

Hart: Purdue University was the first North American university to offer a degree in CS. This rich history lends a feeling of community and connections throughout the world. Purdue CS is within the College of Science. The College’s core curriculum has space built in for students to pursue minors (or even double majors) in fields as diverse as mathematics, art, management, foreign

languages, theatre, or electrical and computer engineering, among many other options. An additional novelty is that students have opportunities for coursework in service learning, to put their knowledge into practice and receive credit for it.

CSTA: Tell us a bit about the social environment.

Hart: The Purdue CS Department has many student organizations that support the social environment of our program. We have chapters of ACM (Association for Computing Machinery) and UPE (Upsilon Pi Epsilon honor society). The CS Women’s Network (CSWN), encourages young women to meet one another and learn more about their chosen field of study. Undergraduate and graduate student boards serve as ambassadors between students and faculty. All of these organizations host many activities, including parties, competitions, and fun nights.

CSTA: What unique programs are in place at Purdue to increase the diversity of the CS student population?

Hart: In addition to being a social element of our department, the CSWN supports our female students. Each year many group members attend the Grace Hopper Conference to network with female CS students from other universities. The department also sponsors the AMIGOS organization to recruit Latinos and other under-represented minorities interested in computer graphics, CS, and related fields. At the pre-university level, the department’s K–12 Outreach Program hosts programs to increase the awareness of and interest in CS at an early age.

Membership News

A Special Invitation to CSTA Members

CSTA members are invited to participate at the ACM SIGCSE Symposium on Computer Science (CS) Education in Dallas, TX, March 9–12, 2011.

The deadline to submit proposals for posters and birds-of-a-feather sessions (BOFs) is Monday, Nov. 1, 2010. Submit a posters proposal to share a tip, technique, or experience from your classroom. Consider a BOF proposal for a small group meeting to discuss a specific topic of interest with other K–12 CS teachers.

There will also be a room set aside especially for K–12 teachers to informally meet and network. More information can be found at www.sigcse.org/sigcse2011. Click the Authors tab for more information on how to submit proposals.

SHOW ME THE NUMBERS CSTA MEMBERSHIP

JUNE 2008 - 4781 JUNE 2010 - 7014

% of Growth since June 2008:

New Zealand	168%
India	134%
Australia	85%
Pakistan	85%
Nigeria	51%
United Kingdom	51%
Philippines	42%
Canada	33%
United States	9%



We're on the Web! csta.acm.org

MARK YOUR CALENDAR

NCWIT Award for Aspirations in Computing

September 6–October 15, 2010 applications accepted
www.ncwit.org/award

Consortium for Computing Sciences in Colleges (CCSC: Midwest)

September 24–25, 2010 in Franklin, Indiana
www.ccsc.org/midwest/Conference

Grace Hopper Celebration of Women in Computing

September 28–October 2, 2010 in Atlanta, Georgia
gracehopper.org/2010

SuperQuest Fall Conference

October 8, 2010 in Hillsboro, Oregon
www.techstart.org/superquest/superquest2010

Consortium for Computing Sciences in Colleges (CCSC: Northwestern)

October 8–9, 2010 in Newberg, Oregon
www.ccsc.org/northwest

USA Science & Engineering Festival & Expo

October 10–24, 2010 in Washington, D.C.
Expo on the National Mall October 23–24
www.usasciencefestival.org

Consortium for Computing Sciences in Colleges (CCSC: Rocky Mountain)

October 15–16, 2010 in Fort Collins, Colorado
www.ccsc.org/rockymt

Consortium for Computing Sciences in Colleges (CCSC: Eastern)

October 15–16, 2010 in Huntingdon, Pennsylvania
projects.juniata.edu/ccsce10/index.shtml

SIGCSE 2011 Submission Deadline

November 1, 2010
www.sigcse.org/sigcse2011

Consortium for Computing Sciences in Colleges (CCSC: Southeastern)

November 12–13, 2010 in Atlanta, Georgia
cs.furman.edu/ccscse

Computer Science Education Week

December 5–11, 2010 in your school
www.csedweek.org

FETC

January 31–February 3, 2011 in Orlando, Florida
cfp.fetc.org

SIGCSE 2011

March 9–12, 2011 in Dallas, Texas
www.sigcse.org/sigcse2011

RESOURCES

Here's more information on topics covered in this issue of the *CSTA Voice*.

Page 1: CSTA CS&IT Symposium www.csitsymposium.org

Page 1: Google www.google.com

Page 1: Microsoft Research research.microsoft.com

Page 1: Anita Borg Institute anitaborg.org

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