csta Voice

CSTA Chapters

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

Volume 9, Issue 5 November 2013

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The Chapter's role

Chris Stephenson

IT SEEMS THAT the hard work of many years and many people is resulting in an unprecedented focus on K–12 computer science (CS) education and a growing awareness that changes need to happen if the current pipeline issues are to be resolved. But in light of this increased attention and engagement, it is important to make sure that the teacher perspective is not displaced, especially when it comes to professional development.

When CSTA began creating local chapters, it did so with the understanding that supporting improvements in K–12 CS education requires a community of teachers who can encourage, support, and even challenge each other to new levels of learning and innovative practices. But what we have come to increasingly believe is that these CSTA chapters must also take a lead in designing and providing professional development for teachers.

We believe that peer-to-peer learning is not only an effective transmission mechanism for new knowledge, but the first step in making a community-wide commitment to better teaching and learning. It ensures that new knowledge can be learned and applied in ways that are better grounded in the needs of students and schools. This is not to say that university faculty and vendors do not have a critical role to play as well. University faculty and the vendors are critical supporters and participants but teacher communities of practice must provide support for ongoing learning over the long term.

In this last year, CSTA has launched two major projects that we believe have helped us meet our goal of having CSTA chapters become leaders in the provision of high quality, peer-to-peer professional development. With help from Google, five chapters planned and delivered summer workshops either independently or in partnership with local universities or existing conferences. This pilot project resulted in not only five very different and highly-rated workshops, but in a new toolkit to help all CSTA chapters deal with the sometimes overwhelming logistics of managing a major event. This project also helped build strong partnerships between many chapters and existing professional development programs such as CS4HS.

More recently, CSTA began an exciting partnership with Oracle. Under this program, chapters can select from among several different kinds of workshops. The chapters are responsible for providing the venue and promoting the workshop and Oracle provides the curriculum, resources, and instructors. To date, 25 workshops have been held, providing critical professional development to more than 400 teachers. CSTA and Oracle are now working on expanding and improving the program based on chapter feedback.

CSTA believes that teachers must continue to play a major *continued on page 2*

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Pheasant Run Resort

csta.acm.org/Professional Development/sub/CSTAConference.html

Executive Officers

Deborah Seehorn
Chair
deborah.seehorn@dpi.nc.gov

Stephen Cooper
Past Chair
cooper@cs.stanford.edu

Staff

Dr. Chris Stephenson
CSTA Executive Director
Phone: 1-800-401-1799
cstephenson@csta.acm.org

Lissa Clayborn
CSTA Director of Development
l.clayborn@csta-hq.org

Pat Phillips
Editor
Phone: 1-608-436-3050
cstapubs@csta.acm.org

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CSTA AND TEACHER-DRIVEN PROFESSIONAL DEVELOPMENT

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role in the expansion and improvement of K–12 CS education and therefore, CSTA chapters must become more able and more active in the planning and delivery of professional development. Building this capacity isn't easy and it isn't free. But we already have great partners and we are open to anyone who truly supports CS education and wants to work with us to make it better.

Computer Science Advocacy Leadership Team (CSALT)

THE CSTA LEADERSHIP COHORT has a new name—the Computer Science Advocacy Leadership Team (CSALT). The new name captures the core essence of what the group is about: advocacy and leadership in computer science (CS) education.

The goal of CSALT is to identify, for each state, teacher leaders passionate about improving K–12 CS education. CSALT works to strengthen the leadership skills needed for effective advocacy, to identify and build partnerships with appropriate stakeholders, and to help organize local and state chapters of CSTA. CSALT members work in their respective states to establish K–12 CS as an essential academic discipline and participate in the CSALT online community to share experiences, strategies, and successes.

We have openings for more K–12 members in many states. If you are interested in joining CSALT or would like more information, please contact Lissa at *l.clayborn@csta-hq.org*. (Please note that the contact email for Lissa Clayborn was incorrect in the September issue of the Voice)

Running a Successful Computing Camp

Barbara Ericson

OFFERING A COMPUTING SUMMER CAMP certainly takes time to plan and execute, but a successful camp is very rewarding in a multitude of ways. The Institute for Computing Education (ICE) at Georgia Tech has years of experience in leading computing camps and here are some tips which we believe will help you ensure the success of your summer computer science (CS) event.

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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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ICE has offered non-residential computing summer camps since 2004 and in 2013, we ran 12 one-week sessions of summer camps for rising fourth graders through graduating high school students. The camps have had significant success in improving students' attitudes towards computing and changing the stereotype that "programming is hard." We have also found that summer camps are ideal for:

- Growing your pipeline of students
- Trying out new teaching strategies
- Increasing students' interest and enjoyment of computing
- Collaborating with CSTA chapter members
- Advocating for CS education
- Earning income in the summer
- Providing jobs for high school students as camp assistants

To run a successful camp, start early—months before the event. You may want to create a non-profit company to operate the camps. Ask lots of questions:

- Can you hold the camp at a school?
- Will you be charged for the use of the rooms or computers?
- Do you need liability insurance?
- Do you need background checks?
- Can students eat lunch in the building?
- Can they use any recreation facilities?

To calculate camp fees, inquire about the weekly cost of local summer day care. You can charge at least $50 to $100 more than quality day care for elementary and middle school camps. We actually charge less for our high school camps because high school students wouldn't be paying for day care and could actually be working to earn money during that time.

Charge enough to at least cover your costs. We pay the high school student assistants $8.00 an hour and local teachers $1,200 for about 30 hours a week. We also provide lunch and a t-shirt to each camper. You might want to provide a discount for students who are on free or reduced-price lunch. We aim to offer a discount to about 25% of the students. The discounted fee is $75 for the week, which covers the cost of the lunches and t-shirts. We don't recommend offering any free camp registrations because it seems to diminish the value associated with the camp and increases the number of no-shows.

For your first experience in running a computing camp, we recommend starting with rising fourth through sixth graders. There is a high demand for computing camps for this age group, registrations fill quickly, and more girls tend to enroll.

There are plenty of free software tools and topics, such as Scratch, Alice, App Inventor, web development, and media computation that are ideal for introducing computing to young children. Our evaluation results show that students enjoy these free tools just as much as expensive robots and tablets. But if you have funds or profits from the camp to buy equipment, we recommend PicoBoards ($45), Finch robots ($100), LEGO WeDos ($130), and LEGO EV3s ($435 with software). You can use the PicoBoards and LEGO WeDos with Scratch 1.4. There are many ways to program the Finches including SNAP!, a version of Alice, Processing, Python, Java, JavaScript, and C.

We recommend having at least one competent student assistant for every 10 campers. We always hire a diverse set of student assistants to serve as role models.

Limit "teaching" time to 15 minutes at a stretch. Give the students lots of hands-on opportunities. Encourage students to work in groups and to be creative. End each day with a short show-and-tell session during which students share what they are working on.

Plan a "family show" on the last day of the camp for students to demonstrate their projects for family members. This is a good opportunity to distribute information about computing careers from CSTA and NCWIT. Draw connections between what the students are learning in the camp and the skills needed in technology careers. Use resources that include role models for females and underrepresented minorities. The Dot Diva website (*dotdiva.org*) is great for showing females in computing activities.

Collect camp evaluation surveys to measure progress toward achieving your goals and improving attitudes towards computing. We use pre- and post-attitude surveys and pre- and *continued on page 4*

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.

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

RUNNING A SUCCESSFUL COMPUTING CAMP

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post-content knowledge assessments. Our surveys are available at *coweb.cc.gatech.edu/ice-gt/1091* along with many other resources for running computing summer camps.

In addition to running our own camps, Georgia Tech has helped 11 other colleges and universities in Georgia start or expand their summer camps as part of Georgia Computes!—a program supported by an NSF grant to broaden participation in computing.

LEARN MORE:

coweb.cc.gatech.edu/ice-gt/2089
ice-web.cc.gatech.edu/dl/

Chapter Mini-grants Now Open

THE ACM SIG GOVERNING BOARD has generously provided funding to CSTA for a Chapter Mini-grants Program to provide seed funding for advocacy activities and resources. Chapters are encouraged to submit a mini-grant proposal to carry out a regional or local advocacy initiative that would support the engagement of new stakeholders, the creation of a new resource, or the organization of an advocacy event.

The application deadline for round one is November 12, 2013. Winners will be notified on December 5. Round-two applications are due January 6, 2014. Round-two winners will be notified on January 28, 2014.

Contact your chapter leader if you have a project idea or are interested in helping your chapter develop a proposal.

Increasing Diversity in Computing

Results of a Study of Community Colleges

Jill Denner and Linda Werner

RECENT RESEARCH from the non-profit organization Education, Training, Research Associates, and from the University of California, Santa Cruz, is providing valuable information about ways in which community colleges can increase women's interest in pursuing computer science (CS).

Community colleges (CC) are an underutilized resource in efforts to broaden participation in computing. They have greater racial/ethnic diversity and more students from lower socioeconomic groups than four-year colleges and universities. There are over 13 million students enrolled in CCs nationwide. In California, there are 112 two-year colleges that serve over 2 million students each year, 60% of whom are members of underrepresented minority groups.

The study, funded by the National Science Foundation, focused on pathways to CS from CCs. The goals of the study were to understand why students who were taking an introductory programming class did (or did not) want to pursue a CS degree and declare a CS major at a four-year university. We targeted these classes because we were interested in understanding how to keep students who have expressed an interest in CS on the pathway to completing a degree and declaring a CS major at a four-year university. We were particularly interested in using the study findings to inform strategies to increase retention and transfer to four-year institutions among women.

During Fall 2010, surveys were completed by 741 students (26% female) from 15 CCs in California; additional surveys and interviews were completed in Spring 2011 and Spring 2012. Students ranged in age from 15–66 years (mean=24.85) and self-identified as: 5% African American,

32% Asian/Pacific Islander, 20% Hispanic/Latino, and 48% White. Less than half (45%) were employed, 13% were married, and 23% had school-age children that lived with them.

At all three timepoints, male students were significantly more likely than female students to say they planned to pursue a computing-related major at a four-year university. One explanation for the gender difference is that, compared to male students, female students were significantly older, more likely to already have a college degree, less likely to have programming experience, and less likely to say they enrolled in an introductory programming course because they wanted to study CS.

We also looked at the factors that predict students' future academic plans. Among both men and women, intention to persist in CS was related to peer encouragement and playing video games. However, women reported less peer support than men, and it only had a short term impact on their intentions—it was predictive at the end of the school year, but not the following year.

Other factors that could explain whether they intended to pursue CS were different for men and women. Intentions were highest among men who were younger, had more programming experience, reported more and better interactions with faculty, and whose valuing of computing-related work increased over two years. Intentions were highest among women who had taken higher-level math; had a greater interest in problem solving; viewed computer programming as creative, fun, and useful for solving problems; and whose expectations for success with CS increased over two years.

We also looked at students' motivations for taking an introductory programming course. Women who were not interested in CS enrolled to increase their earning potential or to fulfill a requirement for their major. Women who said they might or would likely pursue CS also enrolled to increase their earning potential. They additionally wanted to study CS because they thought they would be good at it and liked solving challenging problems.

These findings challenge some widely held beliefs about why women do not pursue CS, based primarily on research on females in K–12 or in four-year colleges. For example, we found that women did NOT enroll in the class because others recommended it or because they wanted to use programming to solve social problems. In contrast to prior research, we also found that womens' intentions were NOT predicted by their programming experience, interactions with faculty, family support, having a parent that works in CS, having a mentor, or gender stereotypes. This finding may be due to the fact that women in our study reported relatively low levels of all these factors. We also found that gaming is an important gateway for women, although they play games less frequently than men.

The results also highlighted the importance of preparation and interactions with professors for male students and of motivational, relational, and behavioral factors for women (specifically peer support, expectations for success, and computer gaming). They also led us to develop several recommendations for community colleges, including:

- Challenge stereotypes:
  - Highlight the financial benefits, and the puzzle-like quality of problem solving.
  - Emphasize that programming is creative, fun, and game-like.
- Increase expectations for success in computing:
  - Reinforce a growth mindset—remind students that success is based on hard work.
  - Reduce stereotype threat in the environment.
- Provide opportunities in introductory programming classes to build peer networks of support and encouragement, such as the use of pair programming.
- Provide incentives for students who are already in the workforce or have a college degree.

LEARN MORE:

Computing Education Challenges at Community Colleges

capspace.org/committee/CommitteeFileUploads/FinalSummitReport.01.28.2011.pdf

Meet the Authors

Lecia Barker
University of Texas, Austin
Lecia is an Associate Professor in the School of Information and a Senior Research Scientist for NCWIT. She conducts research on women's underrepresentation in computing.

Jill Denner
ETR Associates
Jill is a senior research scientist at ETR, a non-profit organization in California. She works in program development with a focus on increasing the number of female and Latino/a students in computing.

Barbara Ericson
Georgia Institute of Technology
Barbara is the Director of Computing Outreach for the College of Computing at Georgia Tech. She is also a part-time PhD student in Human Centered Computing.

Hélène Martin
University of Washington
Hélène teaches introductory computer science courses and leads DawgBytes, the University of Washington Computer Science and Education outreach program.

Joanne McGrath Cohoon
University of Virginia
Joanne is an NCWIT Senior Research Scientist and Associate Professor in Science, Technology, and Society. She co-leads the Tapestry project to promote recruiting diverse students in computing at the high school level.

Chris Stephenson
CSTA Executive Director
Chris is the founding executive director of CSTA and a long-time advocate for CS education.

Linda Werner
University of California, Santa Cruz
Linda has extensive experience as an educator and researcher at the community college, high school, and junior high levels. She is actively involved in work to increase the numbers of female CS students.

csta Voice

The 3-Minute Advocate

"Advocating for computer science (CS) education" sounds like an intimidating activity, but as an educator you are a natural at it. And it doesn't take much time to have a huge impact.

Many CSTA members have shared ideas and strategies to pave the way for you and in this and future issues of the *Voice*, you will find ideas and suggestions for impacting CS education in your community in this new column: The 3-Minute Advocate.

Begin your advocacy efforts by asking:

1. Who are the individuals who impact CS education (school board members, parents, administrators, and others)?
2. What do those individuals need to know about CS education to do their jobs?
3. What can those individuals do to impact CS education?
4. How does quality CS education for students help those individuals achieve their goals?

Now you have the map for making a case for CS education to anyone on your list.

Here are few quick and easy ideas that will put CS education in the limelight.

- Download the CSTA Advocacy Toolkit; it includes everything you need to advocate for CS education (*csta.acm.org/Advocacy_Outreach/sub/AdvocacyTools.html*).
- Download the *Advocacy PPT to Promote AP CS Principles Course* from the CSTA Advocacy Tools page (*csta.acm.org/Advocacy_Outreach/sub/AdvocacyTools.html*). Present to teachers and administrators.
- Use the CSTA Member Badge in your email signature (*csta.acm.org/Membership/sub/MyMemberInfo.html*).
- Put a copy of the *Voice* on the principals' or counselors' desks with a couple articles circled.
- Send the link to the *Voice* to other educators who might want to join CSTA and make an offer to answer any questions they have.
- Enlist a student to write a short article for the school or community newspaper about a class activity or student award.
- Link to CSTA from your classroom website; invite students and parents to visit.
- Register a commitment for CSEd Week, December 9–15 (*www.csedweek.org*).

Thank you to CSALT (formerly known as CSTA Leadership Cohort) members and chapter officers for these advocacy ideas. If you've been successful as an advocate for CS education, tell us about it (*cstapubs@csta.acm.org*).

Equity Matters

Actively Recruit Girls with ICBI

Lecia Barker and Joanne McGrath Cohoon

The demand for employees in computing-related occupations is growing and those careers provide some of the highest entry-level salaries of occupations requiring a bachelor's degree. Yet girls are rarely sighted in high school computer science (CS) classrooms. As a result, they are much less likely to take a CS course in college or seek a computing-related occupation. As a "pipeline" issue, the low representation of girls in CS threatens the nation's economy, security, and ultimately, the well-being of its citizens. Results from the National Science Foundation-funded Tapestry workshops, led by Professors Joanne Cohoon and Jim Cohoon at the University of Virginia, show that CS teachers using active recruitment can make a real difference in the gender composition of their classes. The four ingredients of active recruitment are Interest, Confidence, Belonging, and Identity, (ICBI).

Interest

How can you interest girls in CS? Appeal to girls' present interests, even though you know they will change over time. Discuss how CS relates to health, social media, fashion, forensics, and other interests. For example, tell girls that computer scientists create clothing that protects cyclists from collisions with cars, develop tools that help deaf children learn vocabulary, and create robots that save lives in fires. Tell them that with a computing occupation, they can work anywhere and in just about any industry.

Overcome the misconception that being in CS means sitting behind a computer all day. Working in teams and with clients may explain why women in computing are typically more satisfied with their jobs than women in other occupations.

Girls, parents, and counselors also need to know that the demand for computer scientists is high, as are salaries. The National Center for Women & Information Technology (NCWIT) provides talking points and statistics for parents, teachers, and counselors to make sure they are giving girl-relevant information (*ncwit.org*). CSTA also provides brochures for middle and high school students (*csta.acm.org/Resources/sub/BrochuresPostersVideos.html*).

Where can you find potential female students? College-bound girls populate half of mathematics classes, take calculus and statistics AP exams at about the same rate as boys, and make up at least half of biology and chemistry classes. These same high-achieving girls are involved in student government, yearbook, newspaper, sports teams, and more. You can reach them in their classrooms or by proposing collaborative projects with student groups. Providing relevant information to math and science teachers and counselors can motivate them to encourage capable girls to take your class. You or current and past students can also visit classes for brief recruitment messages. Reaching out to friendship groups is an effective way to help girls avoid being the only female in a class.

Confidence

How can you build girls' confidence in their ability to succeed? Confidence is not the same as ability, but girls often tacitly believe negative stereotypes about women and computing. Girls need personal encouragement and assurance that they will do well in your class. And they need to believe you when you tell them that they can succeed; explain your evidence for that assessment.

In class, you can build confidence by providing tasks that have enough challenge to be interesting, but which are doable. For example, ask groups of students to solve logic puzzles in class or use *CS Unplugged* activities. As students gain experience with CS, they will become more confident, especially if they understand what counts as a successful effort.

Belonging

How can you help girls to feel they belong? You can decorate your classroom with images of women leaders in computing and pictures of groups of students that include females. CSTA provides free classroom posters (*csta.acm.org/Resources/sub/BrochuresPostersVideos.html*). Highlight current and past students' achievements, likening them to current students' projects. You may be able to display pictures, trophies, and

interesting projects in public places, such as the library. You can show videos of successful female computer scientists and ask students to learn more about them and their careers (*ncwit.org*).

Identity
Understand girls' identity needs and demonstrate that understanding through the use of language in class communication and in assignments. Use a gender-mix or gender-indeterminate names in your assignments and make sure students know you won't tolerate jokes or comments that suggest girls in CS are inferior. Be conscious that most students do not want to think of themselves as nerds or geeks, especially girls.

Using ICBI to broaden CS appeal is a particularly effective strategy. Lecia Barker discussed these strategies during a session, *Active Recruiting—Attracting Girls into High School CS*, at the CSTA Conference on July 16, 2013 (www.youtube.com/watch?v=Wany9hiZtm0). Find more ideas and share your own at *cstapestry.wikidot.com/recruiting*.

Meet the Chapters

CSTACNJ – Central New Jersey

Officers:
Daryl Detrick, president (*detrickd@warrenhills.org*)
Brinder Soin, president-elect (*BSoin@pway.org*)
Evelyn Rothman, treasurer (*erothman@clarkschools.org*)
Barbara Froehlich, secretary (*b.b.froehlich@gmail.com*)

Elections for all positions will be held in December.

Meetings:
Our chapter meets for two hours on the second Tuesday of even-numbered months at Rutgers University. In the first 30 minutes, we update members on the state of CS education in the U.S. and New Jersey and then follow with discussions and show-and-tell activities led by members.

Communications:
Google Group

Unique situation:
We have been a chapter for less than a year but have 75 members. Typical meetings consist of about 22 attendees.

CSALT members:
Daryl Detrick and Mayra Bachrach

Partnering organizations:
We work very closely with Rutgers University (Fran Trees and Lars Sorensen).

Most effective advocacy work:
We created a chapter working group called CSNJ which oversees the advocacy outreach of our chapter and for our CSTA Northern New Jersey chapter (CSTANNJ). The 15 group members met during the summer and were charged with the task of surveying all New Jersey high schools to learn about CS education throughout the state. We plan to use this data in our efforts to make CS count as a math or science graduation credit.

Collaboration:
Our meetings provide opportunities for discussion and collaboration; additionally members use the Google Group to share interesting articles and links. Because this is our first year, we are just beginning to think about organizing larger statewide events. There has been some discussion about sponsoring a video game competition during CSEd Week.

Chapter sponsored PD events:
We helped with the recent CS4HS event sponsored by Google and held at Rutgers University.

Advice for growing a successful CSTA Chapter:
There are four keys: enthusiasm, organization, communication, and collaboration.

Members appreciate data and tools to use in advocating for CS. Involving area colleges and universities is very helpful for building membership. While Rutgers is our primary partner, we have representatives from six colleges and universities on our membership list.

Chapter Spotlight

Planning a Programming Competition

Hélène Martin

A programming competition is a great way to maintain students' interest in computing and to strengthen their programming skills. It's also a fun opportunity for CSTA chapter members to work together and collaborate with industry professionals and local college faculty. The Puget Sound CSTA chapter (PSCSTA) organizes two annual competitions. The first is scheduled on the Saturday of CSEd Week and the second occurs about two weeks before the APCS exam to provide students with extra practice. Last December, over 200 students participated! The competition lasts three hours and is preceded by a presentation from a local computing faculty member or professional.

The competition programming challenges require taking data from a text file as input, manipulating the data to solve a problem, and outputting the solution. Our question packets usually include a dozen or so problems. We have often purchased ready-made problem packets from organizations such as A+ Computer Science (*www.apluscompsci.com*). A committee of local engineers, classroom teachers, and college students supplement these with their own original problems (a fun professional development opportunity).

Teams of up to three students register online starting about a month prior to the competition. There are two divisions: "Novice" for those who have not yet completed a course involving a significant amount of programming and "Advanced"

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SHOW ME THE NUMBERS
CS LINKED TO ENVIABLE PAYCHECKS

Major	Median Mid-career Salary	Salary Potential Rank
Computer Engineering (CE)	$106,000	6
Computer Science (CS)	$102,000	8
Software Engineering	$99,300	12
Management Information Systems (MIS)	$92,200	18
Computer Information Systems (CIS)	$87,400	25
Information Systems (IS)	$87,200	26
Information Technology (IT)	$84,100	30

Source: *www.networkworld.com/news/2013/091713-computer-science-major-earning-potential-273915.html*

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Computer Science Teachers Association
2 Penn Plaza, Suite 701
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ASPIRATIONS IN COMPUTING RECOGNITION

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for those who have more experience. The questions are the same except that the novice teams are given some additional easier questions.

Volunteers from local companies serve as judges. They receive USB drives with secret input files. When a team is ready to have their solution scored, they call their judge over to their station by making a funny sound they previously agreed on (for example, mooing like a cow). The judge runs the students' program on the secret data file and verifies the output. Students receive a slight penalty for each incorrect submission. While this scoring strategy is more labor intensive than an automated system, it means that we can allow any version of any programming language and we can easily involve a large number of volunteers who interact directly with the students and can encourage and sometimes help struggling teams.

Local companies sponsor pizza, snacks, t-shirts, and prizes. The entry fee is $30 per team. This fee reduces the number of no-shows while also providing our chapter with a small amount of income. The competition has rotated between different hosts, including the University of Washington and local companies. The host provides copying services, access to a PA system, tables for refreshments, and electrical power for the computers.

Fun prizes ranging from the latest electronic gadgets to stickers are raffled to all participants. Students receive a raffle ticket when they register and can earn more by asking good questions of their judges and other volunteers during a brief socializing period at the end of the competition. This gives students a chance to learn more about computing careers and gives the lead judges time to determine the winners. The top three teams in each division receive medals both for themselves and for their school.

LEARN MORE:
www.pscsta.org/p/student-programming-contests.html

Keep up with CSTA!

The CSTA conference, advocacy efforts, CS education news, chapter events—you name it and you'll find it on Twitter (@CSTeachersA and #csta13), Facebook (Computer Science Teachers Association), and soon, LinkedIn.

Join the conversation with the connection of your choice.

Post your professional development events on the CSTA website:

csta.acm.org/ProfessionalDevelopment/sub/TeacherWorkshops.html

by contacting *l.clayborn@hq.acm.org*

MARK YOUR CALENDAR

NCWIT Aspirations in Computing
Deadline: October 31, 2013
www.aspirations.org

Consortium for Computing Sciences in Colleges (Eastern)
November 1–2, 2013, Ewing, New Jersey
www.ccsc-eastern.org

CSTA Annual Conference Call for Proposals
Deadline: November 15
csta.acm.org/ProfessionalDevelopment/sub/CSTAConference.html

Consortium for Computing Sciences in Colleges (Southeastern)
November 15–16, 2013, Greenville, South Carolina
www.ccscse.org

Chapter Mini-grants Proposals
Round-one deadline: November 12, 2013
Contact your chapter leader

CSEd Week
December 9–15, 2013
www.csedweek.org

ACSL Contest 1
December 20, 2013
www.acsl.org

Java Fundamentals Training
Virtual: January 27–March 21, 2014
In-class: April 4–5, 2014, Buffalo, New York
academy.oracle.com/pages/prog_commit_inst_institute.htm

Chapter Mini-grants Proposals
Round-two deadline: January 6, 2014
Contact your chapter leader

TCEA
February 3–7, 2014, Austin, Texas
www.tceaconvention.org

ACSL Contest 2
February 14, 2014
www.acsl.org

ACSL Contest 3
March 14, 2014
www.acsl.org

Consortium for Computing Sciences in Colleges (Southwestern)
March 14–15, 2014, San Marcos, California
www.ccsc.org/southwestern

ACSL Contest 4
April 11, 2014
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