

**YOUR CSTA
MEMBERSHIP**



Voice

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

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December 2007

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Membership Has its Benefits

Robb Cutler, CSTA President

Groucho Marx once said that he would never belong to a club that would accept him as a member. Clearly, he had never heard of CSTA!

CSTA offers a wealth of resources and services for its members. We continue to expand member benefits, act upon membership surveys, distribute a wide array of useful resources, and foster collaborations between CSTA and other computing organizations. Our goal is to make CSTA an association which provides real value for computing education professionals.

I encourage you to take advantage of CSTA membership benefits and to become active in YOUR organization. Nomination forms for positions on the CSTA Board will be available soon—consider contributing experience and skills by applying yourself or encouraging others to apply.

Discover and enjoy the many benefits of your CSTA membership! We're privileged to have you as a member and look forward to a long and productive collaboration!

ACM on Front Lines of Policy Issues

Chris Stephenson

ACM (CSTA's parent organization) has launched a new Education Policy Committee (EPC) that will put ACM at the forefront of educational policy issues relating to computer science (CS) education and will bring computing educators and researchers directly into policy debates surrounding education.

According to ACM Director of Public Policy, Cameron Wilson, the committee will provide a mechanism, by which the computing community can help to shape national educational policy as it relates to, or potentially impacts, computing and CS. "Computing is a driving force as we move into the 21st century's knowledge-based economy, but it is a field that is often overlooked when new education policy is formed at the state and federal levels. Education is part of ACM's core

mission and this effort is a natural extension of our expertise. We hope to inform policymakers why computing should be an integral part of a student's education," said Wilson.

Until now, ACM has not actively engaged in shaping education policy and its initiatives in and around education have focused on developing curriculum standards, accreditation of computing programs in the U.S., and methods and strategies for teaching computing and CS. This new EPC, however, will provide a means by which the computing community can monitor and influence key policy and legislative initiatives at the federal and state level. The committee is chaired by Bobby Schnabel, Dean of the School of Informatics at Indiana University, and includes members with considerable *continued on page 3*

Volunteer Power

CSTA wishes to thank:

**Philip East,
Betsy Frederick,
Sandy Graham,
Betty Parys, and
Doug Peterson**

for their years of dedicated service to the CS & IT Symposium Program Committee.

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CSTA Board Positions Available

Nomination Form to Arrive Soon

Michelle Friend Hutton



Nomination forms for CSTA Board positions will arrive soon by mail and completed nominations are due by January 15, 2008. Interested CSTA members are encouraged to apply or to encourage other qualified members to submit an application. All CSTA Board of Directors positions must be held by individuals who are professionally connected to K-12 computer science (CS) education and registered as members of CSTA. CSTA Directors are required to attend two Board meetings per year and expected to contribute meaningfully by participating on at least two Standing Committees. Seven positions are available for the term of June 2008-2010.

President—Duties include chairing the Board of Directors, supervising and coordinating CSTA's activities, and serving as liaison to the Executive Director and staff. The President must have served at least one prior term on the CSTA Board.

Vice President—Duties include substituting for the President in the event of his or her absence and supervising Board elections. This position is open to any educator with responsibilities for K-12 CS education.

State Department Representative—Open to any person who reports to a state department of education and oversees, in some capacity, CS education.

Teacher Education Representative—Open to any person who is a member of a post-secondary faculty of education and has an interest and expertise in effective teaching methodologies for K-12 CS education.

University Faculty Representative—Open to any person who is a faculty or instructor of CS in a major research university.

At-Large Representative—Open to any person who is an educator with responsibilities for K-12 CS education.

International Representative—Open to any person who is involved in K-12 CS education and does not reside on the North American continent.

The Nominations Committee will select the two most qualified applicants in each position for inclusion on the ballot. The ballots will be mailed to all current CSTA members in the March CSTA Voice newsletter and must be returned no later than May 1, 2008.

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CSTA Voice is a publication of the Computer Science Teachers Association.

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.

Change of Address and Membership Questions: Contact Member Services via email at cstahelp@csta.acm.org, or call 1-800-342-6626 (U.S. & Canada) or +1-212-626-0500 (Global).

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Criteria for submitting articles: Potential writers for CSTA should send a brief description of the proposed article, estimated word count, statement of value to members, author's name & 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.

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ACM ON FRONT LINES OF POLICY ISSUES

continued from page 1

experience in computing education and policy at K-12 and university levels.

CSTA's role in the policy committee will be to provide insight and guidance on K-12 issues and also to assist the committee with grass-roots level efforts. "Our goal," says committee member and CSTA Executive Director Chris Stephenson, "is to help the committee to understand the ramifications of education policy and legislation at the

courses in all levels are exacerbating an already crisis-level situation with regard to our ability to ensure that we continue to produce a workforce capable of maintaining our technical and innovative edge.

In addition, while other countries are making major efforts to ensure that their students receive the solid foundation in computing that is clearly a necessary part of the 21st century skill set, K-12 CS education in the U.S. continues to languish in the pool of elective courses.

K-12 CS education in the U.S. continues to languish in the pool of elective courses

classroom level and to help build the capacity for a vibrant and effective K-12 computing advocacy community."

The formation of the EPC follows in the wake of the growing recognition of the role that educational policy is or is not playing when it comes to addressing core concerns in computing education and in industry. An extensive body of research continues to show that dropping enrollments in CS

According to Stephenson, these are exactly the kind of issues that can and should be addressed through policy. "When we look at federal funding for STEM educational initiatives, for example, it is clear that

CS is not receiving appropriate support considering the national impetus to ensure our technological and innovative superiority," say Stephenson. "We also know that the classification of CS as a technical elective in many states is seriously hampering students' abilities to fit it into their schedules." These, she suggests, are issues that can be addressed by ACM's EPC.

Changing Technology Poses Greatest Challenge

U.S. High School Survey Results

Judith Gal-Ezer

Rapid and continuing changes in technology and time for professional development are the greatest teaching challenges for respondents in the recent CSTA comprehensive survey of computer science (CS) education in U.S. high schools. While the results from many questions were mixed, overall the responses were hopeful for both teachers and students.

In regard to the question of professional development, the respondents indicated that face-to-face workshops and seminars are the most effective method for delivering professional development. Perhaps surprisingly, the lack of curriculum or lack of knowledge was not seen as a major problem.

The good news is that 73% of the respondents stated that their school offers introductory CS courses. The credits

earned by these courses, however, were not always CS credits. Rather, they were distributed between math (9%), business (19%), and other electives (43%).

The content covered in the introductory courses included problem solving (62% of responses), graphics (58%) hardware (57%), ethics (55%), programming (55%), productivity software (47%), databases (41%), computer security (38%), Web development (35%), network (21%), and logic (16%). These results are encouraging, because they show that teachers are attempting to teach the breadth of CS rather than focusing simply on programming or applications.

Only 32% of the respondents indicated that their school offers AP CS, with an average of 23 students per school. However, 89% of the teachers report that



Don't forget to renew your *FREE* CSTA membership from your email notice.

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.

E-MAIL: cstapubs@csta.acm.org

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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.

The Advocate Blog

STRATEGIES

We all know that teaching computing is about technology.

But how do you use technology to teach computing?

Do you use blogs, wikis, lesson

recordings, interactive devices, or online communications?

Please share your experiences teaching with an effective tool or strategy or get new ideas shared by other teachers on CSTA's Advocate Blog.

Log onto the
CSTA Advocate Blog

blog.acm.org/csta/

CHANGING TECHNOLOGY

continued

their school offers other computing courses in addition to introductory CS and AP CS. These courses cover a wide spectrum of topics, including: Web design (76%),

...77% of the teachers think that there are a significant number of qualified students who are not taking CS courses

computer graphics (53%), computing communications/media (43%), programming (41%), networking (24%), applications (17%), and many more.

Still, 77% of the teachers think that there are a significant number of qualified students who are not taking CS courses, for a variety of reasons. The main reason, they believe, is that students have no room in their timetables for elective courses, which many students see as less important or less interesting than other core courses.

Schools varied from relatively small schools with 1-100 attending students (3%) to much bigger schools with more than 2000 students (11%). The teachers who participated in the survey represented a diversity of experience, with 9% having taught 1-3 years and 47% who had taught for more than 15 years. They were also diverse in terms of gender, with 53% females and 47% males and in terms of teaching location, with 41% of the teachers coming from urban schools, 39%

from suburban schools, and 20% from rural schools.

The spring 2007 survey was developed by the CSTA's research committee. The results are based upon 950 usable responses from the 1080 self-described CS, computer programming, or AP CS teachers who replied. The complete results of the 2007 CSTA National Secondary Computer Science Survey are available on the CSTA website at: csta.acm.org/Research/sub/CSTAResearch.html

CSTA and CCSC

Strength through Cooperation

Jim Aman

Editor's Note: *In the Voice article, Repairing the Pipeline (Dec. 2006), Jim Aman introduced the cooperative initiatives being undertaken by CSTA and the Consortium for Computing Sciences in Colleges (CCSC). This year, he has a personal message for the K-12 membership of CSTA.*

There has never been a time when it was so obvious that postsecondary and K-12 computer science (CS) educators should work together to help encourage more students to study computing, and CSTA and CCSC are building a new model of cooperation that can work on both the national and local level.

In the spring of 2006, the CCSC Board decided to begin working aggressively with CSTA to promote computer education in K-12 schools. At the college level, we now know that it is critical to have a steady flow of students into CS

and related curricula. Companies turn to us when they need new personnel. We can't supply their needs if we don't have the students coming from K-12. At CCSC we understood that we have to work with organizations such as CSTA to support K-12 teachers in their efforts to attract students to CS as an area of study and as a career.

When CSTA appointed Steve Cooper as its liaison to CCSC, our work together really took off. Steve and I found much

At the college level, we now know that it is critical to have a steady flow of students into computer science

common ground in our several meetings and we are now fully focused on wedding the best efforts of our two organizations to strengthen K-12 computing.

Over the last year, I have been urging the folks who organize our regional CCSC conferences to include specific sessions for K-12. CCSC is organized into ten loosely-defined geographic regions. Each region holds an annual conference (five in the fall and five in the spring). Several of the chairs have responded by adding a person to the conference committee with specific responsibility for K-12 and by adding K-12 strands to their conference program. Some of the conferences also offer credits for participation. CSTA has also assisted by helping conference chairs determine what kinds of topics would be of interest to teachers and how to make teachers aware of the conference. CSTA has also sent its staff and Board members to give sessions at CCSC conferences.

So how does this work on a local level? Well, first you could seek out and attend the CCSC conference closest to you. (There

is a complete, current list of the conferences on the CCSC website at www.ccsc.org/events/conferences.htm.) You could also choose to become active with the conference planning committee. Your perspective will be a valuable asset.

If there isn't a CCSC conference near you, contact the colleges and universities in your area and tell them you would like to find a way to work with them to strengthen your school's computing program. At my institution, Saint Xavier University in Chicago, for example, we held our second TECS workshop last summer. Our five faculty members and our ACM Student Chapter are willing to visit classrooms and to offer help of any kind, including consulting with teachers, locating materials, and hosting informal birds-of-a-feather sessions. SXU isn't unique. All it takes to get started is a call to your local college or university CS department. It's a win-win proposition!

How Are We Doing?

The Annual CSTA Member Survey

Myra Deister

CSTA is launching its second Member Satisfaction Survey and is asking all CSTA members to log in and tell us how well we are providing what you need.

CSTA is committed to meeting the professional needs of its members by providing valuable new member benefits and resources. We rely heavily on member feedback to meet that commitment. To plan for new resources and benefits, however, we need to hear from YOU! We need to know whether you find our current resources useful and what new resources and benefits we could provide that would be of assistance to you.

CSTA President Robb Cutler, states that member feedback plays an essential role in shaping CSTA's priorities. "CSTA's goal is to provide its members with the tools and support they require to improve

teaching and learning. We use the results of the Member Satisfaction Survey to determine how to improve current benefits and what new benefits our members want and need," says Cutler.

CSTA is requesting that all members take a few minutes to provide their thoughts by completing our online CSTA Membership Survey.

You will receive an email from CSTA with a link to the online survey or you can access the survey from the link "Member Satisfaction Survey" at csta.acm.org.

As an extra incentive, members who complete the CSTA Membership survey before April 3, 2008 will be entered to win a Flip Video Camcorder!

The winner of the Flip Video Camcorder will be announced May 1, 2008 on the CSTA Blog: blog.acm.org/csta/.

Meet the Authors

Jim Aman

Saint Xavier University, Chicago

Jim is liaison to CSTA for the Board of the Consortium for Computing Sciences in Colleges (CCSC) and currently the CCSC National Membership Chair. He is a former high school and junior high school computer teacher.

Robb Cutler

President, CSTA

Robb has been a software engineer, a business entrepreneur, a nationally recognized AP CS teacher, and an independent school administrator. He is currently an educational technology consultant in California.

Myra Deister

9-12 Board Representative, CSTA

Myra is a CS/math teacher at Sunny Hills High School in Fullerton, California, and an adjunct professor at Fullerton College.

Judith Gal-Ezer

International Chair, CSTA

Judith is a professor of CS at the Open University of Israel and has served as Vice President for Academic Affairs and head of the Mathematics and Computer Science Department.

Michelle Friend Hutton

Vice-President, CSTA

Michelle is the CS teacher at the Girls' Middle School in Mountain View, California.

Chris Stephenson

Executive Director, CSTA

Chris has been the Executive Director of CSTA since it began in 2005.

Mark J. Van Gorp

Olathe Northwest High School, Kansas

Mark's experiences include being an Assistant Professor in CS as well as teaching high school CS.

Anita Verno

Curriculum Chair, CSTA

Anita is an Assistant Professor and Coordinator of IT at Bergen Community College in New Jersey and an author of *A Model Curriculum for K-12 Computer Science*.

Stevie Viaene

CSTA-Oregon, President

Stevie teaches computing courses at Tigard High School in Oregon.

CSTA congratulates the Spelman Spelbots!

Whitney O'Banner, Andrea Roberson, Ashley Johnson, Philana Benton, and Katrina Stewart placed second in the 11th annual RoboCup passing challenge!

Watch the action at www.spelman.edu/~spelbots/

Out and About the Community

CSTA-Oregon: 1st CSTA Chapter

Editor's note: *Across the country, CSTA members are meeting locally to discuss their issues and plan local events. Over the next year, CSTA will be launching a major program to help these, and other interested groups, evolve into full CSTA chapters. But there is one organization that actually came before CSTA was formed at the national level and decided to join us in our very first year. This organization is now called CSTA-Oregon. Meet Stevie Viaene, president of CSTA-Oregon. She began her career as a math teacher and now teaches a variety of computing courses at Tigard High School in Tigard, Oregon.*

CSTA: Tell me about the early years of CSTA-Oregon.

Stevie: The history of CSTA-Oregon dates to the 1990's with Superquest, a computer science (CS) and information technology institute for teachers sponsored by the Software Association of Oregon (SAO). Superquest offered Oregon computing teachers an opportunity to learn new computer skills and knowledge, develop friendships, discuss CS education, and interact with fellow CS educators. By 2003, SAO began to dedicate a large portion of its fund-raising to the support of Superquest. Just within the past few years, SAO created a new foundation called the TechStart Education Foundation, which continues with support from CSTA-Oregon.

CSTA: When did you begin your association with CSTA-Oregon?

Stevie: I've been a member of Oregon's CSTA since the early 90's. Prior to joining the local CSTA, I felt isolated teaching high school CS classes. Superquest and CSTA provided a network of high school and college teachers invaluable for support in my teaching and professional growth.

CSTA: Tell us about the goals for CSTA-Oregon.

Stevie: CSTA-Oregon works to set up relationships between CS education programs and business partners in order to:

- Provide guest speakers and/or field trips for students.
- Provide training and internship opportunities for students and teachers.
- Provide guidance and resources for teachers.
- Provide committee members for an Instructor Appraisal Committee for teachers seeking Continuing Professional Education (CPE) endorsement.

We also want to assemble and maintain a database of CS teachers and programs in Oregon and involve our members in supporting and enhancing the efforts of CSTA, ACM, Northwest Council for Computer Education (NCCE), and ISTE.

CSTA: Please share a few bits of wisdom from your experiences.

Stevie: Focus your vision of CS education through two lenses to see both the big picture and the small picture.

Big Picture: Recognize the interdependency of business and education. Local technology businesses can provide satisfying and lucrative career options for students but they need a competent and competitive work force to remain strong and viable. The local education system can contribute to that pool of trained employees by providing excitement and opportunities for students.

Small Picture: We all recognize the joys and frustrations of teaching technology electives in the middle and high schools. CS is not the main focus of the Oregon Department of Education, and there-

fore it is not the main focus of district and building administrations. Battling for class time, resources, training time, and equipment can be daily occurrences. CS teachers in Oregon are fortunate because CSTA-Oregon is a rich source of training for teachers, by teachers. In addition, Superquest offers the best professional networking of teachers from all over Oregon, and now Washington, for mutual professional support and just plain collegial fun.

From the Members

Yet another Certification Story

Mark J. Van Gorp

In the June 2007 issue (Volume 3 Issue 1) of the *Voice*, Jane Whitehurst, a teacher in North Carolina, wrote about her frustrations with her state's computer science (CS) certification requirements. I've experienced similar frustrations here in Kansas, and by providing my personal anecdotes, I hope to further illustrate that CS teacher certification is a national problem.

Like Jane, I believe that I am qualified to teach secondary CS. My education includes a B.A. in mathematics, a minor in CS, and a secondary education teaching certificate. Additionally, I have an M.S. in CS and a Ph.D. in curriculum and instruction. I've been a programmer/Web developer, taught computer programming at a private high school, taught CS/CS education as an Assistant Professor (successfully heading to tenure), headed that university's CS education endorsement program (Michigan) and led that program through an NCATE accreditation review. Most recently I managed programmers, Web developers, and educational technologists at a major university in Kansas.

I returned to teaching CS when an opening conveniently surfaced in a suburban Kansas City public high school. However, like Jane, I am now under-certified. It is ironic that I led pre-service and in-service teachers through the State of Michigan's CS education endorsement process, but I am not qualified for certification to teach CS in Kansas. I decided to accept the CS teaching position with a restricted vocational certificate (4 year provisional) as I make progress toward meeting state requirements. Many issues are present in my predicament— some of which are quantitatively highlighted in CSTA's national CS certification study. The results of that study are available to CSTA members at csta.acm.org.

No CS Expertise Requirements

According to my research and consultation with the Kansas State Department of Education, educators with certain endorsements (e.g. business) may teach CS courses such as programming; however, this does not necessarily mean that they have completed a programming course in their teacher preparation. My concern is that some students may not be pursuing additional CS courses in our district's grade 10-12 high schools because they may have taken a prerequisite programming course in 9th grade from a teacher who does not possess adequate CS expertise. There should be subject knowledge requirements for CS teachers similar to the requirements in other subject areas.

Invalid Competency Exams

Kansas requires successful completion of the National Occupational Competency Testing Institute's (NOCTI) computer programming exam in order for a teacher to become certified to teach CS. The document viewable at www.nocti.org/PDFs/ExperiencedWorker/ComputerProgramming.pdf is somewhat dated and/or at least a little too broad for CS secondary education (COBOL and BASIC are mentioned). In the exam I found errors including missing portions of question stems, spelling errors, and

a question regarding auto-increment semantics in which there was no correct answer—at least by contemporary standards. I showed the test to the test administrator (who was appalled) and wrote to the head of the Technical Teacher Education program of the coordinating university in Kansas. This test certainly missed the measure of reliability and validity, and as a teacher, I would have been embarrassed to give it.

The Vocational Umbrella

Because my certificate is under the category of “vocational education,” I must complete two courses on the principles of vocational and cooperative education linked to workplace practices. I feel these vocational requirements are inappropriate for teachers of high school CS courses. Computing is not and should not be categorized as a vocational subject.

It is also interesting to note that only one university in Kansas offers the required courses, some of which appear to be typical education courses with the word “vocational” added to the course title.

These certification issues are not limited to Kansas or to North Carolina; CS teacher certification is a national problem and we need to focus on this issue at the national level. CS teacher certification needs to be focused on CS, not vocational education, or business education, or educational technology. Its goals should be to ensure that classroom teachers are qualified to teach the CS skills and knowledge needed for today’s students. My experiences, like Jane’s, illustrate the confusing, inequitable, and resource wasting conditions of CS teacher certification within states and from state-to-state. By understanding the issues we can work together to create an improved certification process—our teachers, students, and communities deserve it.

Editor’s note: See the article below to learn more about what CSTA is doing to help members navigate the maze of certification requirements.

Digi-Know

Certification—State-by-State

Anita Verno

As learned from the education official responsible for computer science (CS) education in each state, the majority of states (30 out of 45 states participating) consider CS education to be very important for students at the secondary level. Yet, only 12 states believe that their CS teachers are highly prepared and that their professional needs are met to a high degree. These facts, and many more, are reported in the Web-published CSTA report, *Computer Science State Certification Requirements* (www.csta.acm.org/ComputerScienceTeacherCertification/sub/CertificationStudyReport.html).

The two-part report provides an analysis that is both surprising (state officials consider CS education to be important) and confirming (confusion existed over the topics considered to be CS). The report’s recommendations offer direction for improving CS education and suggest: clearly defining CS as a discipline distinctive from related disciplines; and sharing CS teacher preparation standards developed by professional organizations with all state certification officials and national accreditation associations, including the National Council for Accreditation of Teacher Education (NCATE), the Teacher Education Accreditation Council (TEAC), and national state associations such as the National Association of State Directors of Teachers Education and Certification (NASDTEC).

The second resource available to members is a state-by-state database of teacher certification requirements for teaching CS.

Access to this information will assist current, pre-service, and potential teachers with information that will help them comply with state requirements, or determine those requirements for states in which they may be seeking employment. CSTA believes that this information is critical to CSTA members precisely because, in many states, it is nearly impossible for teachers to determine what the requirements are and whom to contact if they have a question.

The information was gathered by CSTA in 2006 as part of a two-year research project. This database contains certification information for 44 states and the District of Columbia (Arkansas, California, Hawaii, Illinois, Mississippi, and Oklahoma chose not to participate in this study).

Bits and Bytes

ACSL OFFERS CS COMPETITIONS

The American Computer Science League (ACSL) organizes CS and computer programming competitions for junior and senior high school students from over 200 schools in the U.S., Canada, Japan, and Europe. The contests motivate students through creative programming problems and college-level topics presented at an introductory level. ACSL is on the approved activities list of the National Association of Secondary School Principals (NASPP).

For details visit www.acsl.org. Late registrations for this school year must be made by the end of December 2007.

MICROSOFT OFFERS TECHNOLOGY INTEGRATION MATERIALS

Cross-curricular technology integration learning activities take shape with Microsoft’s *Expression Web* Curriculum materials. Expression Web is a new Web development tool used to build dynamic, interactive sites. The curriculum materials, including an extensive tutorial, lesson plans, and free software, will be available February 8, 2008. The NETS (National Education Technology Standards)-based activities guide students to answer an essential question, conduct research, and communicate their learning by building a Web site. The curriculum units can be customized to focus on technology integrated with a variety of curricular areas and are adaptable to team projects for students and collaboration between teachers. For details visit www.microsoft.com/facultyconnection/precollegiate.

SCHUBMEHL-PREIN COMPETITION WINNERS

The winners for 2007 Schubmehl-Prein competition for the Best Essay on the Social Impact of Computing have been announced. First place: David Martinez, Damien High School, California. Second place: Tunlewa Soyinka, Damien High School, California. Third place: Maria Lee, Hillsdale Academy, Michigan. The annual competition is open to high school juniors. The first-place prize is \$1,000, the second-place prize is \$500, and the third-place prize is \$250. Winning entries have traditionally been published in the Association for Computing Machinery’s *Computers and Society* magazine.

SHOW ME THE NUMBERS

Your Global CSTA

Total Membership: 5285

Number of U.S. Members: 4250

Number of International Members: 1035

FIVE COUNTRIES WITH GREATEST INTERNATIONAL MEMBERSHIPS:

Nigeria: 348 India: 265 Canada: 148 Pakistan: 34 New Zealand: 31

SOURCE: CSTA, September 2007



MARK YOUR CALENDAR

Florida Educational Technology Conference (FETC)

January 22-25, 2008 in Orlando, Florida
www.fetc.org/

SIGCSE 2008

March 12-15, 2008 in Portland, Oregon
www.cs.duke.edu/sigcse08/

Consortium for Computing Sciences in Colleges (CCSC: Central Plains)

April 4-5, 2008 in Kansas City, Missouri
www.ccsc.org/centralplains/

Consortium for Computing Sciences in Colleges (CCSC: Mid-South)

April 4-5, 2008 in Russellville, Arkansas
www.ccsc-ms.org

Consortium for Computing Sciences in Colleges (CCSC: Northeastern)

April 11-12, 2008 in Staten Island, New York
www.ccscne.org/2008/

Consortium for Computing Sciences in Colleges (CCSC: Southwestern)

April 18-19, 2008 in Northridge, California
www.ccsc.org/southwestern/

Consortium for Computing Sciences in Colleges (CCSC: South Central)

April 18-19, 2008 in Corpus Christi, Texas
www.sci.tamucc.edu/ccsc/index.html

CS & IT Symposium

June 28, 2008 in San Antonio, Texas
www.csitsymposium.org

National Educational Computing Conference 2008 (NECC)

June 29-July 2, 2008 in San Antonio, Texas
web.uoregon.edu/ISTE/NECC2007/program/NECC2008.php

The current TECS workshop schedule is available at
tecs.acm.org/.

The complete ACM Calendar of Events is available at
campus.acm.org/calendar/.

RESOURCES

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

Page 2: CSTA Nominations csta.acm.org/

Page 3: 2007 CSTA National Secondary Computer Science Survey
csta.acm.org/Research/sub/CSTARResearch.html

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