



Voice

TECHNOLOGY
IN THE
CS CLASSROOM

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

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Professional
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Staying Afloat

Professional Development for Teachers

Anita Verno

Are you tired of the lonely fight to stay abreast of changing technology and its impact on your teaching? Your CSTA membership provides preferred registration to CSTA-sponsored professional development events. Learn in workshops and sessions specifically designed for computing teachers and network with teachers just like you! CSTA supports three venues for professional development, each with a slightly different focus.

Computer Science and Information Technology Symposium (CS & IT)

This annual event provides a full day of professional development for high school teachers. The CS & IT Symposium is scheduled to coincide with a major conference, such as the National Educational Computing Conference (NECC). The symposium is planned with guidance from a local teacher to ensure regional relevance. Sessions range from hands-on instruction with cutting edge resources to discussions on ideas for delivering CS instruction that is relevant and exciting to your students. CS & IT 2008 will be held June 28, 2008 in San Antonio, TX. (www.csitsymposium.org)

Teacher Enrichment in Computer Science (TECS)

TECS workshops are hosted by colleges and universities, and sponsored by CSTA. They focus on topics described in Levels II to IV of the *ACM Model Curriculum for K-12 Computer Science*. Equity, ethics,

careers, problem-solving, and classroom activities are a part of every TECS workshop. To ensure that each workshop meets the needs of the local community, the planning group includes a local grade 6-12 teacher, college students, and a college faculty member. (tecs.acm.org/)

Java Engagement for Teacher Training (JETT)

High school teachers looking for pedagogically-oriented professional development in Java and object-oriented concepts will find JETT workshops valuable. These workshops are hosted by colleges and universities in partnership with CSTA. To ensure that each workshop meets the needs of the local community, the planning group includes a local grade 9-12 teacher, college students, and a college faculty member. (jett.acm.org/)

All of these professional development sessions focus on community-building and encourage networking and the sharing of issues and solutions among attendees. Visit csta.acm.org/ to learn more about CSTA professional development opportunities.



CS & IT
Symposium

June 28, 2008 – San Antonio, TX
www.csitsymposium.org

The Advocate Blog

Life Changing Moments

Tell us about your most valuable professional development experience.

How did it change your life?

Read what others have to say and post a comment!

blog.acm.org/csta/

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Once upon a time....

CS Fairy Tales

Shannon Duvall

"There is no idea worth explaining that cannot be explained by a good story." This anonymous quote illustrates the motivation for using computer science (CS) fairy tales to introduce new CS concepts in the classroom.

CS fairy tales read like children's stories, but have an underlying metaphor for a programming construct or algorithm and can be used from grade school through college courses. For example, a story of a wise old man that sends people down their "true" paths is a metaphor for how if-then-else constructs work. The main benefit of using CS fairy tales is that they can be used to introduce non-technical students to a new computational idea in a non-threatening manner.

CS fairy tales can also act as a mnemonic device. My usual lecture on variable scope, for example, was not nearly as effective in my own classes as a story in which variables are born (declared) in one country and not allowed to immigrate. I became convinced of this when I overheard a student in the com-

puter lab explain a syntax error to his lab partner by saying, "Oh, variables born in Methodpotamia must stay in Methodpotamia." The students tend to remember the details of a story more than they do the fine points of my lectures!

This work is a part of a broader effort, "Kindergarten Computer Science", which advocates using kindergarten techniques of storytelling, games, physical objects (toys), and kinesthetic learning (play) in CS classes in high school and college. This work is a result of collaboration between Shannon Duvall (Elon University), Robert Duvall (Duke University), and Judy Hromcik (Arlington High School, Arlington, TX) to collect and categorize alternative teaching activities. We are always looking for more contributors, especially in the area of CS fairy tales. To hear one of the CS fairy tales visit the CSTA podcasts at csta.acm.org/Resources/sub/Podcasts.html. If you use stories in your classroom, have your own stories, or would like more information, please contact me at sduvall2@elon.edu.

CSTA Congratulates Brian Scarbeau!

BRIAN SCARBEAU, a member of the CSTA Board of Directors, from Lake Highland Preparatory School in Orlando, FL has been awarded **Microsoft's MOST VALUABLE PROFESSIONAL (MVP) AWARD** as an exceptional technical community leader in ASP.NET.

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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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Jack Learns the Facts about Queues and Stacks A CS Fairy Tale

Once upon a time there was a guy named Jack. When it came to making friends, Jack did not have the knack.

Jack had few friends, though he wished he had more. But the truth of it was, that Jack was a bore.

There were no parties, no rings on the phone. And when it came to dating? Well, Jack was alone.

Jack was unhappy about all this, it's true. He wished he could be like his popular friend, Lou.

One day after Jill told Jack, "You're so strange!" Jack thought to himself, "Jack, it's time for a change!"

So Jack went to talk to the most popular guy he knew. He went up to Lou and asked, "What do I do?"

"I hate being dull! I hate being a bore! When I show up someplace, girls head for the door!"

Lou saw that his friend was really distressed. "Well," Lou began, "just look how you're dressed!"

Lou said, "You wear all the same clothes every day, and you never have any new things to say."

"Don't you own CDs and movies and books? Don't you have any clothes with a different look?"

"Yes!" said Jack. "I sure do! Come to my house and I'll show them to you!"

So they went off to Jack's and Jack showed Lou the box where he kept all his shirts and his pants and his socks.

It also turned out, he had unopened CDs and dusty books. He had 53!

Lou said, "I see that you have all your clothes in a pile. Why don't you wear some others once in a while?"

Jack said, "Well, when I remove clothes and socks, I wash them and put them away in the box."

"Then comes the next morning and up I hop. I go to the box and get my clothes off the top."

Lou quickly realized the problem with Jack. He kept clothes, CDs, and books in a stack!

When he reached for something to read or to wear, he chose the top book or underwear.

Then when he was done, he would put it right back. Back it would go to the top of the stack.

"I know the solution!" said a triumphant Lou, "You need to learn to start using a queue!"

Lou took Jack's clothes and hung them in the closet. And when he had emptied the box, he just tossed it.

Then he said, "Now, Jack, at the end of the day, put your clothes on the left when you put them away."

"Then tomorrow morning when you see the sun shine, get your clothes from the right, from the end of the line!"

"Don't you see?" said Lou. "It will be so nice! You'll wear everything once before you wear something twice!"

Lou took Jack's books and CDs in a stack, and he took out his hammer and installed a rack!

And with everything in queues, in his closet and shelf, Jack started to feel quite sure of himself.

Jack's life started to turn around quick. Learning about queues — it just did the trick.

Jack's music and movies gave him new tales to tell. And thanks to a joke book, he made friends quite well.

And Lou especially was very impressed, when Jack's new friends voted him "Best Dressed."

Now Jack's dating Jill and he's popular, too. All thanks to Lou and his wonderful queue.



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your email
notice, renew your
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membership.

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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.

Volunteer Power

Wanted: WEB REPOSITORY VOLUNTEERS

Two volunteers are needed for the CSTA Web Repository Steering Committee.

Responsibilities:

- ▶ Help to expand the collection
- ▶ Review and classify materials
- ▶ Attend one meeting per year
- ▶ Work a couple of hours per week

Please send an email outlining your interest and previous experience with curriculum materials development to gail.chapman@hq.acm.org

Programmed to Learn: Three Coding Languages for Beginning Students

John Rice

Editor's note: *This is the first of a three-part series on Logo, Scratch, and Alice as introductory programming languages for teaching science, technology, engineering, and math.*

With the emphasis in our schools and curriculum on science, technology, engineering, and mathematics (STEM), educators are always looking out for new sources of instruction that help facilitate the education of our students in these areas. Besides the usual litany of books and educational software, one key area often overlooked is the use of programming languages.

Most of us old enough to remember the introduction of the IBM-PC also recall BASIC, the programming language included in MS-DOS. BASIC was essentially boring and pedantic, requiring seemingly endless lines of arcane coding. Fortunately, since those command prompt days, a variety of programming languages have been developed designed to capture the imagination of future programmers. Due to a reliance on math, and touching on engineering and science, these programs often provide an excellent STEM-based curricular resource. This series of articles will focus on three of the better known programming languages designed specifically for young students. Versions of all three are freely available online, and many books and Web resources have been written supporting their use. This first installment looks at the Logo programming language.

LOGO

Logo, often considered the grandfather of educational programming languages, was introduced initially by a group that included famed educator Seymour Papert. Logo was designed from the outset to encourage understanding of complicated mathematical concepts while teaching the basics of programming. Logo is rather famous in educational circles,

garnering its own entry in Wikipedia (see en.wikipedia.org/wiki/Logo_programming_language). Dr. Papert is renowned as a constructivist, maintaining the belief that children construct their own knowledge based on the processes in which they engage. Thus, Logo was designed to encourage discovery learning and problem solving; students figure things out by doing rather than watching.

Logo's popularity soared in the 1980s when Apple released a version designed for the Apple II.

Logo was first introduced in the 1960s. Initially, students programmed a robotic turtle that responded to their commands. As computing power and graphics progressed through the years, the robotic turtles were replaced by virtual turtles, and current versions of the programming language have the action take place on the screen. However, many real-world robotic projects, especially those designed to introduce students to robotics (such as the generic Cricket Robot, the plans for which are widely distributed on the web) still use Logo.

Logo's popularity soared in the 1980s when Apple released a version designed for the Apple II. IBM and Atari also had versions. The Lego toy company also briefly flirted with the idea of using Logo in their robotic products, although the Mindstorm line uses a different language, according to Wikipedia.

Since Logo is concerned with making a virtual turtle perform "tricks," students begin by learning basic procedures. Typing FD 100, for instance, makes the turtle go "forward" on the screen. Typing RT 90 makes the turtle "turn right" by 90 degrees. By repeating these command lines three more times, students find they

can make the turtle draw a square on the screen. From there, more advanced programming leads to more advanced geometrical designs, some of which are quite interesting.

Logo remains a force in educational technology. When I taught aspiring teachers at University of North Texas (UNT) summer before last, Logo was part of the curriculum. I was fortunate to have Theresa Overall, who has since completed her doctorate in educational computing at UNT, visit my class and lead the Logo section. Dr. Overall served as technology coordinator for the Lamplighter School in Dallas for several years and was there when Lamplighter was a test site for the first commercial version of Logo. This version was co-developed by

Massachusetts Institute of Technology (MIT) and Texas Instruments in 1980.

A wide variety of Logo versions remain available, many free for educational purposes. Fortunately, MIT maintains the Logo Foundation, which is dedicated to disseminating the language as well as books and information. The foundation also keeps track of Logo summer institutes and student robotic expositions that make use of Logo. Visit their site at el.media.mit.edu/Logo-foundation for more information.

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Essential Web 2.0 for the CS Classroom

Vicki A. Davis

Computer Science (CS) with all of its study of computing and technology is often taught devoid of the latest Web 2.0 technological innovations. These tools can improve your teaching and help your students understand the tools that will be an integral part of their future. The following four technologies are vital to your CS classroom.

Blogs (short for web log) are my place for student reflection. After each module of instruction in my class, I ask students to reflect on what they have learned and still do not understand. One ethical “question of the week” is an effective way to integrate ethics and digital citizenship into the curriculum. Free places to blog include www.classblogmeister.com (which allows pre-moderation) and Ning.

Wikis are a fast, easy way to edit Web pages collaboratively. These gems track student edits by username and archive all copies. I use one wiki as a central repository for all information in all of my classes (westwood.wikispaces.com.) This allows me to post a variety of assignments, Websites, tools, and instructions in a central location. Wikis are also the cornerstone of my global collaborative projects. Wikispaces.com, pbwiki.com, and wetpaint.com are three great sites to use.

Screen capture with narration allows students to capture what is happening on their computer screen. This is important for creating tutorials but also to share problems. If students are having a problem, they can record the screen capture along with their narration and post it to a blog or wiki to elicit feedback. Jingproject.com is a free site, although my favorite software for this is Camtasia.

Student networks are different from social networks. I have a private social network on Ning for my students, a school network (including students, parents, teachers, and grandparents), and a public network for the Flat Classroom project. These provide great tools for interaction, photo and audio sharing, forums, and blogs, and can be made public or private.

Global cultural understanding, ethics, and safety and privacy emerge as issues any time you integrate Web 2.0 in your classroom. When you first begin using these technologies, you will likely encounter challenges and obstacles; however, I believe you’ll find they create greater efficiency in your teaching and more literate, effective students.

Visit my blog to learn more:
coolcatteacher.blogspot.com.

Meet the Authors

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 Vicki's CS classes have won numerous awards for their global Flat Classroom Project and Horizon Project. Vicki blogs at coolcatteacher.blogspot.com.

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 Shannon Duvall is an Assistant Professor of CS. She conducts research in Natural Language Processing as well as CS Education.

Judith Gal-Ezer

International Chair, CSTA
 Judith is a CS professor at the Open University of Israel and chairs the Israeli CS curriculum committee.

Jose Kamal Moraes

Jose teaches CS in India and researches teaching models and methodologies in CS.

John Rice

John Rice is an author and speaker specializing in educational technology and instructional gaming. He serves as technology director for a school district in Texas.

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CSTA Board, 9–12 Teacher Representative
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 Carl Ulrich has been teaching Computer Repair Classes for St. Charles Community College for close to 9 years at N.E.C.C.

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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*.

Classroom tools

Capturing the Perfect Lesson

Brian Scarbeau

Have you ever wished you could just press the “play-it-again” button on the perfect presentation of a lesson you spent so many hours preparing and which perfectly met the need of your students? Classroom technology has come to the rescue.

Lesson-capturing software products such as Camtasia or Macromedia’s Captivate, enable you to preserve your lesson presentation, down to your every computer keystroke, by recording a movie of the action on your computer monitor overlaid with your voice. It is as if someone were looking over your shoulder viewing the monitor as you conduct a lesson and demonstrate on your computer.

The final product is a movie file that can be shared over and over. An editing feature enables you to make changes before publishing the recording as a movie.

We currently use this technology for teaching our completely online Introduction to Computer Science course at Lake Highland Preparatory School in Orlando, FL. I use Camtasia to share PowerPoint slides and to demonstrate software and programming techniques as if I were actually in the room with my online students.

The multi-media technology also gives students, online or in the classroom, a valuable resource for learning through multiple senses. In addition to the usual textbook or printed materials, they can observe and listen to a presentation as many times as they need in order to master a concept. The movie files are also perfect for reviewing past lessons. They are forever available, and if posted online, accessible anywhere.

While it takes practice and patience to become comfortable with the recording and editing processes, the payoff is excellent. Your “perfect lesson” can live on to benefit current and future students.

Sample lessons are viewable at

sws.lhps.org/Default.aspx?alias=sws.lhps.org/learnvisualbasicdotnet and sws.lhps.org/Default.aspx?alias=sws.lhps.org/learnjava.

Bits and Bytes

Microsoft Offers Technology Integration Materials

New materials from Microsoft provide students with the opportunity to build creative, dynamic Web sites from scratch with the design tools that IT professionals use. Beginning on February 6, 2008, cross-curricular teaching and learning materials for Microsoft® Expression Web® will be available at no charge. The tutorial and curriculum unit (with lesson plans) were designed and tested by CSTA members for high school teachers and students. 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 for collaborative team projects. To view and download these materials, visit www.microsoft.com/facultyconnection/precollegiate.

Game Development Collaboration

Student artists and musicians are invited to collaborate in a game development project with Lake Highland Preparatory School in Orlando, Florida. Brian Scarbeau is creating a public domain library of student-created game sprites and game sound files for others to download and use in their game projects. Credit will be given to the designers of all resources. Contact brian.scarbeau@gmail.com for more information.

Out & About the Community

CSTA Participates in Israel CS Event

Judith Gal-Ezer

As part of its commitment to building a vibrant international K-12 computer science (CS) education community, representatives from CSTA took part in an important annual event for CS teachers in Israel organized by Dr. Tami Lapidot (who chairs the Israeli Center for CS Teachers) and Dr. Dan Aharoni—the winter symposium of the Israeli National Center for CS Teachers.

One of the main goals of the Israeli National Center for CS Teachers is to foster professional leadership. This is achieved in many ways; one is the three-day summer seminar, usually held at the end of June, and the one-day winter symposium, always held on the first day of Chanukah. The seminar and symposium include lectures by CS academic researchers and leading industry researchers, workshops, and special “show and tell” sessions.

This year’s winter seminar was held at the Open University of Israel on Dec. 6, 2007, and the Israeli National Center for CS Teachers was pleased to have Dr. Chris Stephenson and Robb Cutler attend on behalf of CSTA. Stephenson gave a successful presentation titled: *High School Computer Science Education as a National Imperative: Why the U.S. Needs to be More Like Israel*, and Cutler had enormous success with his workshop on: *Moving to OOP: A Variety of Tips and Techniques to Help Ease the Transition*. Teacher feedback indicated that the symposium was successful, valuable, and enjoyable.

Both Stephenson and Cutler reported that they were highly impressed with David Harel’s talk: *Grand Challenge: Modeling of Biological Systems*. “It was wonderful to hear this talk about powerful and important new areas of CS such as the use of computing to model living organisms and systems, and to see the teachers so engaged in the big ideas of CS being discussed beyond the classroom,” said Stephenson. The lectures have the dual benefit of bringing CS teachers and researchers into closer dialog, and in giving teachers valuable ideas for their classrooms.

The academic programs offered by the Israeli Center for CS Teachers include social events, joint meals, coffee breaks, and free time for “corridor talks.” These social interactions are essential because they increase the group identity and strengthen relations among the teachers.

Prior to the seminar, Cutler and Stephenson visited high schools in the Haifa area, and met with Prof. Anat Zohar, Head of the Pedagogical Center, the highest educational figure in the Ministry of Education, next to the Minister. On the day of the seminar they also met with Dr. Avi Cohen, CS Supervisor for the Ministry of Education, and Prof. Orit Hazzan, Chair of the Ministry of Education’s High School CS Program Committee.

On the tourism part of their visit, Stephenson and Cutler toured Jerusalem including Yed Va’shem — the Holocaust Museum, Galilee, and Jaffa.

Membership News

Tell us what you think!

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. Survey takers will be entered in a drawing for a Flip Video Camera. Visit csta.acm.org and click on Member Satisfaction Survey.

Curriculum in Action

Cooperative Learning

Jose Kamal Moraes

We destroy the disinterested (I do not mean uninterested) love of learning in children, which is so strong when they are small, by encouraging and compelling them to work for petty and contemptible rewards—gold stars, or papers marked 100 and tacked to the wall, or A's on report cards... in short, for the ignoble satisfaction of feeling that they are better than someone else. John Holt, *How Children Fail*

I've learned through my experiences teaching in India that cooperative learning comes naturally to most students and that cooperative learning environments can be the key to better teaching and learning. With creativity and guidance, teachers can channel this instinct to greater achievement in their classroom.

Cooperative learning promotes the development of higher-order thinking, essential communication skills, improved motivation, positive self-esteem, social skills, tolerance, creativity, and team work—all vital skills in career development. And fortunately, CS topics lend themselves very well to cooperative learning projects. Here is an easy first-step cooperative learning activity that will work in any classroom, with any topic.

A Cooperative-learning Review Game

Time: 1-2 class periods

Description: Divide the classroom into groups of 10 or fewer students and name the groups. Give students about 20 minutes to prepare questions from recent lessons. Each group member writes a single question on a piece of paper, folds the paper, and puts it in a cup marked with the group's name.

Next, a member from group 'A' picks a question from another group's cup, discusses it within his/her group, and answers it within 2 minutes. Scoring is optional. It is important for each member to take a turn picking a question. The student who picks the question, leads the discussion of it with the group, and answers it. Repeat the process until all questions have been answered.

SHOW ME THE NUMBERS CSTA MEMBERSHIP IN THE U.S.

Total World Membership: 5279

Total U.S. Membership: 4171

FIVE STATES WITH THE GREATEST MEMBERSHIP

TX: 363 CA: 360 NY: 263 PA: 258 NJ: 191

SOURCE: CSTA, December 2007

Best practices:

- Consider group norms to determine if it is best to form groups randomly or selectively by the teacher.
- Consider forming groups that guarantee reasonably similar skill and knowledge levels.
- Start with this type of highly-structured cooperative activity in order to prepare students for larger cooperative learning CS projects.
- Monitor feedback and reactions from students in order to fine-tune future cooperative activities.

Editor's Note: Watch for successful project management strategies in the June issue of the Voice.

Our Story

CS Behind Bars

Carl Ulrich

A school in Northwest Missouri was hit by a tornado and lost most of its computer lab. They received a large shipment of computers just in time for the new school year through the innovative Computers-for-Schools program at Northeast Correctional Center (N.E.C.C.) that puts computer science (CS) to good use in a win-win situation for the State of Missouri.

For nearly nine years, N.E.C.C., in partnership with St. Charles Community College, has been giving inmates a chance to learn about computers and has provided some inmates with the first college credit they have ever received. Once the students have passed the class, some are then hired within the center to refurbish computers. Donated systems from companies across the state are rebuilt into nearly new computers. Each computer is recorded, has the hard drive wiped, and is then assigned to a worker. This worker does all phases of the refurbishment from cleaning keyboards to loading the OS. Each completed system is then rechecked for reliability and wrapped to await use. Any system not up to standards is cannibalized for usable parts and unusable parts are sent to recyclers for reclamation. This assures companies that their donations are not tossed aside to become part of the e-scrap problem.

Through the Missouri Department of Elementary and Secondary Education, all of the refurbished systems are sent to schools across the state at no charge. The systems have everything needed from keyboard to monitor and are currently loaded with Windows 2000 purchased through Microsoft's MARS program. To date, approximately 1,000 students have completed classes at N.E.C.C. and over 6,000 computers have been made available to more than 300 schools!

Several inmates have put their skills to good use after being released. One person went to work for Best Buy as a regional manager before going on to start his own business. The training they receive is now recognized by the Department of Labor as apprenticeship hours and can be listed on their job applications to help give them a chance at a fresh start.

With this program companies are getting a reliable way to dispose of surplus computers, inmates are getting a chance to learn job skills, and students are getting more computers in the classroom! People, as well as systems, are getting a second chance.

Thorin Schmidt and Carl Ulrich teach the class, which is divided into two segments. The first half teaches basic keyboarding and commands, as well as other basic CS topics. In the second half of the class, students build a system from the ground up. Ulrich and Schmidt are currently working to include training and testing for the IC3 and A+ certification in the curriculum. Inmates who have their high school diploma or GED are eligible to participate in a college level course in basic computer repair and to earn three college credits upon completion.



MARK YOUR CALENDAR

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

Consortium for Computing Sciences in Colleges (CCSC: Midwest)

September 26-27, 2008 in Holland, Michigan
www.ccsc.org/midwest

CSTA Institutional Member K-12 Outreach Programs

Spring Math and Computer Science Event

March 12, 2008 Westchester Community College, New York
Contact: rowan.lindley@sunywcc.edu

Outreach Day for High School Girls

March 26, 2008 University of Pennsylvania, Philadelphia
Contact: rpowell@cis.upenn.edu

Gr8 Designs for Gr8 Girls

May 8, 2008 University of Toronto, Ontario, Canada
Contact: gr8girls@cs.toronto.edu

Game Design Afterschool Program

October 2008 Cornell University, New York
Contact: wofford@cs.cornell.edu

RESOURCES

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

Page 1: Computer Science and Information Technology Symposium (CS & IT) www.csitsymposium.org

Page 1: Teacher Enrichment in Computer Science (TECS) tecs.acm.org/

Page 1: Java Engagement for Teacher Training (JETT) jett.acm.org/

Page 2: CSTA Advocate Blog blog.acm.org/csta/

Page 2: Kindergarten CS www.cs.duke.edu/csed/kindergarten/

Page 3: CS Fairy Tales jonah.cs.elon.edu/sduvall2/CSFairyTales/Welcome.html

Page 4: Education Games Research edugamesblog.wordpress.com/

Page 4: CSTA Web Repository csta.acm.org/WebRepository/WebRepository.html

Page 5: *The World is Flat* by Thomas Friedman

Page 5: *Wikinomics* by Don Tapscott

Page 5: Flat Classroom Project flatclassroomproject.wikispaces.com

Page 5: Horizon Project horizonproject.wikispaces.com

Page 6: Camtasia www.techsmith.com/download/camtasialtrial.asp

Page 6: Microsoft Pre-Collegiate Connection www.microsoft.com/facultyconnection/precollegiate

Page 6: Israeli National Center for CS Teachers cse.proj.ac.il/ (in Hebrew)

Page 6: Membership Satisfaction Survey

www.surveymonkey.com/s.aspx?sm=iruoWmhWcdni4jIT1GloTQ_3d_3d

Page 7: Teacher's Role in Creating Subject Interest www.indiaeducation.net/articles/

TEACHERS_ROLE_IN_CREATING_SUBJECT_INTEREST_IN_STUDENTS_1.asp



**CS & IT
Symposium**

**June 28, 2008
San Antonio, TX**

www.csitsymposium.org