A CALL TO ACTION!

Debra J. Richardson, CSEdWeek Chair
Professor of Informatics, UCIrvine
Why?

- To recognize and promote the critical role of computing in today’s society
- To share information and activities to bolster computer science education at all levels
- To eliminate misperceptions about computer science education and computing careers
- To communicate the endless opportunities computer science education prepares students for within K-12, higher education and careers
How?

- Recruit diverse partners
- Engage broad audience
- Increase number of events held
- Distribute print materials
- Website activity
- National impact on curricula
- National impact on enrollment
Focused on bold messages that appeal to as wide an audience as possible to encourage participation and lead to impactful results.

Navigation to landing pages with messages tailored to each audience including suggested activities and events, relevant resources.

“Call to action” – a pledge challenging visitors to do something during CSEdWeek.

Strong social media content – & other ways to
On Tuesday, Dec. 7 at 12 noon EST, the National Science Foundation (NSF) will host a webcast featuring Amy Bruckman of Georgia Tech and Leah Buechley of MIT, who are at the forefront of teaching information technologies to the next generation of computer scientists, any one of whom may be the next computing pioneer. Read about this and other news items by visiting our Newsroom.

LEARN MORE
Participation Pledge

- Members of each audience encouraged to pledge to support, participate or host an event.
- Pledge form staged to start simple but get details from those who have plans.
- Audience landing pages highlight suggested audience-specific activities to do during CSEdWeek and also what others have pledged.
- Over 100 resources to provide ideas.
Welcome, Students!

You can change the world using computing!
Computer science is key to solving our world’s most crucial problems—such as environmental sustainability, poverty, hunger, and homeland security. Computing gives you the power not only to shape your own future but also to change the world. Who knows—you could be the one to solve the greatest issue facing the world today or invent the next great innovation that makes the world a better place.

Computing is Everywhere!
From art to architecture, education to the environment, healthcare to human rights, and politics to public safety—there’s an exciting and rewarding career underpinned by computing waiting for you!

CSEdWeek Ideas for Students
Explore the world of computing and help spread the word about the importance of computer science education. Here are some suggested activities that you can do during CSEdWeek to raise awareness and have some fun too:

YOU Direct it!
Create your own commercial highlighting how computer science has changed the world. Upload it to YouTube and tag it with “CSEdWeek”.

Associated Resources

The Adventures of CS Man!
Check out the CS Man Video made by the students of the Massachusetts Academy of Math & Science as an example.
Where?

- Pledges recorded from 46 states, 3 territories, DC, the Armed Forces, and at least 34 other countries

  Most active states:
  - Massachusetts
  - California

- Web traffic from 130 countries other than US top ten were:
  1. Canada
  2. India
  3. United Kingdom
  4. Brazil
  5. South Korea
  6. Greece
  7. Ireland
  8. Mexico
  9. Germany
  10. Israel

When?

- 1750 pledges as of December 12

- For the week of December 5 – 12:
  - 106 events pledged
  - 173 activities pledged

- November 22 – December 12:
  - 13,222 website visits
  - 39,756 page views
  - 2047 facebook likes
  - 708 twitter followers

- December 13 – February 25:
  - +4,854 website visits
  - +10,091 page views
  - +117 facebook likes
  - +35 twitter followers
What?

- Events
  - 33% Open house
  - 26% Workshop/short course
  - 12% Ongoing event
  - 10% Contest
  - 10% Field trip
  - 10% Lunch/meeting

- Activities
  - 47% Aspiration Awards reviews
  - 25% CSEdWeek promotion
  - 20% Blogging
  - 7% Tweeting

Who?

- Event hosts
  - 47% university
  - 17% high school
  - 6% corporate

- Activity planners
  - 30% college/university faculty or student
  - 25% K-12 Teacher
  - 20% Corporate
  - 6% K-12 student
  - 4% parent
  - 3% community member
  - 2% K-12 administrator

Achieved goal of engaging students and teachers
- Over 33% of the support pledges came from K-12 students
- 17% from college students
- 13% from K-12 teachers
- 13% college faculty
You should pledge and participate right now … December 4-11 … or whenever in your classroom … in your neighborhood … across the country … around the world to promote computer science education and the ★mind-blowing★ impact of computing.

Just do it … pledge now!
Panel of CSEdWeek Participants

- Padmaja Bandaru,
  Advanced Math and Science Academy–Marlborough, MA

- Joseph Kmoch,
  Wisconsin Public Schools

- Dan Garcia,
  University of California–Berkeley

- Josh Paley,
  Gunn High School–Palo Alto, CA

- Ruthe Farmer, Vice Chair CSEdWeek 2011
  National Center for Women & Information Technology
CS ED WEEK at

201 Forest Street, Marlborough, MA- 01752
Ph: 508 597 2400
Activities

- Had activities throughout the week including two parent nights

- We conducted in-house competitions and announced one winner per grade.
  - Poster contest, animation contest and cool games

- We honored our NCWIT, MASS affiliate award recipient
Monday – Dec 6

- Monday - separate assemblies for 6th, 7th, and 8th grade students
  - Presenters came from iRobot and Artbotics

- Presenters showed students how CS can be combined with different art forms.

- iRobot presenter showed how Robots can be used in wars to find survivors or checking landmines etc.
Chad Barraford came and talked about his Project Jarvis in our CS classes.

He gave presentations about his Digital Assistant both in the middle school and high school.

In the evening we had a Parent Night for middle school parents to educate/inform them about opportunities and resources for CS Education.
Wednesday – Dec 8

- The whole high school assembled for a keynote speech from Steve Vinter – Google Site director and Ryan Chin from MIT Media Lab
  - Steve talked to our students about the importance of CS Education, right from middle school.
  - He also talked to the students about various opportunities in the corporate world for students with a computing degree.
• Ryan showed the students the current project he is working on which is a smartcities car, a car used in overcrowded cities and to fight pollution.

• Ryan talked about the smartcities car from designing to testing of the car.

• He introduced the students to the concepts of engineering and programming together.

• Both of them took questions from the students after the presentation.
Chris Bowen from Microsoft visited all the CS classes both in middle school and high school.

He explained the work environment at Microsoft. He explained the students about how a project starts, how to co-ordinate with other team members, finishing and presenting to the customers.

We also organized another parent night for high school students. As a result, two students got offered internship at BOSE and we received funding for computer engineering project.
Maitland Lederer from Harmonix Inc. came to present to both middle school and high school.

She explained gaming is a part of CS.

Students asked many questions about how to start the idea of a game and how to implement it.

They got very involved and told her about what they did so far in some games and how to overcome the difficulties in reaching the goal of developing a game and include audio in the game.

She was very open, funny and very helpful to students.

With her inspiration— we have around 45 to 50 students enrolled in the XNA gaming club this summer.
Plan

• We started planning in September 2010
• We set the date for the whole high school assembly and asked the speakers in the first week of October.
• Confined the presentations to CS classes without disturbing the regular class schedule.
• Particularly the parent night had good results with more parent volunteering resources like old computers, internships and grants from their organizations etc.

• KEY : PLAN AHEAD!!!! Will get good attention from the students and parents too!!
Obtaining a Governor’s Proclamation endorsing CS Education Week in WI

Joe Kmoch
joe@jkmoch.com
Governor’s Proclamation

• Idea came from Stephanie Hoeppner in Ohio who get a proclamation there.
• I contacted our WI CS&IT mailing list of about 75 members at the time
• One member (Bob Hillestad) thought his friendly representative would help
Getting the First Proclamation

• Bob’s state representative put us in contact with the Governor’s Office and a staff member there worked with us.
• He and I worked on wording with the staff member; a template came from Cameron Wilson at ACM and Stephanie Hoeppner from Ohio
Getting the Second Proclamation

• In November, 2010, I contacted the staff member in the Governor’s Office to get a Gov Proclamation for 2010
• She had me send the updated wording (change of dates)
• I had a new Governor’s Proclamation a week or so later.
A PROCLAMATION

WHEREAS, computing technology, an integral part of culture, is changing how people interact with each other and the world around them and is transforming industry, creating new fields of commerce, driving innovation in all fields of science, and bolstering productivity in established economic sectors; and

WHEREAS, the field of computer science underpins the information technology sector of our economy, which is a significant contributor to United States economic output and that information technology sector is uniquely positioned to help with economic recovery through the research and development of new innovations; and

WHEREAS, National Computer Science Education Week can inform students, teachers, parents, and the general public about the crucial role that computer science plays in transforming our society and how computer science enables innovation in all science, technology, engineering, and mathematics disciplines and creates economic opportunities; and

WHEREAS, providing students the chance to participate in high-quality computer science activities, including through science scholarships, exposes them to the rich opportunities the field offers and provides critical thinking skills that will serve them throughout their lives; and

WHEREAS, all students deserve a thorough preparation in science, technology, engineering, and mathematics education, including access to the qualified teachers, technology, and age-appropriate curriculum needed to learn computer science at the elementary and secondary levels of education as these subjects provide the critical foundation to master the skills demanded by our 21st century workforce; and

WHEREAS, computer science education has challenges to address, including distinguishing computer science from technology literacy and providing adequate professional development for computer science teachers; and
Who was reached and participated

• We distributed the document electronically to about 80 teachers who form our Computer Science and Information Technology teacher network in Wisconsin.

• The Wisconsin Mathematics Council posted it prominently in their bi-monthly newsletter to their 2200 members.

• Several teachers I know of made copies on legal paper and posted it in their classrooms and elsewhere.
Meeting the goals of CS Ed Week

• Provided statewide recognition of this important week

• Provided teachers with a tangible product they could use with their students and other staff members and the administration
What Worked

• We were lucky to find someone who directed us to the right person in the capitol

• The first proclamation required several back and forth communications with the lady in charge of these proclamations so that our wording (provided mostly by Cameron Wilson) would fit their format.
How you might do this

• Start no later than November 1, maybe earlier
• Contact Cameron Wilson for his template cameron.wilson@acm.org
• Contact me for an electronic version of the WI Governor’s Proclamation joe@jkmoch.com
• Contact your friendly state representative or call the main number at the capitol
• Googling did not readily provide this info
CS Education Day

2011-07-12 @ 2:45pm
Columbia University
Faculty Club
1st Floor Ivy Lounge

With comments from an attendee:
JOSH PALEY, Gunn High School
275 HS Students from Bay Area!
CSTA-CA: Golden Gate Chapter

CS Education Day @ Cal 2011
http://www.eecs.berkeley.edu/IPRO/cseducationday/
Day’s Schedule

- **Morning Plenary (9:30-11:30am)**
  - Welcome address by Dean, Chair, coordinators, CSTA President!
  - The Beauty and Joy of computing best projects
  - How to make a computer animated short film
  - Decade’s best student computer animated films
  - Prof Dan Klein's StarCraft AI winning project
  - Prof Ken Goldberg sharing Robotics research

- **Pizza Lunch + Research Posters, then 4 locations in PM**
  - Hands-on Programming in LightBot
  - Hands-on Programming in BYOB
  - CS Unplugged activities
  - GamesCrafters game theory tutorial + hands-on activities
  - Question & Answer panel by current students

[Rotating every 45m]
Picasa Album of CS Ed Day @ Cal
Lessons Learned (for next year…)

- Start planning early!
- Leverage your local CSTA chapter
- Find a local university with an active outreach program and nudge them to coordinate one
- Get the Chair or Dean on board
- Have them find activities they’re doing that would be interesting to HS students
  - They might already have labs that are used to holding open houses, or some hot exciting, relevant research
  - Anyone could do Lightbot, CS Unplugged, BYOB
  - Pizza, water cheap! Logistics hard…
NCWIT Award for Aspirations in Computing

» Recognizes girls in grades 9-12 for their computing interest & achievements

» Winners receive cash prizes, technology, scholarships, & more

» All applicants are invited to join an online community of peers

» Girls apply online Sept 15 – Oct 31, 2011

www.aspirationsaward.org
You’re the experts.

Tell us...

What resources do you need?
What works? Share it. #CSEdWeek

Coming soon CSEdWeek Idea Bank.

Engage: info@csedweek.org

www.csedweek.org Dec. 4-11, 2011
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DAN GARCIA
UC Berkeley
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