Welcome to the Computer Science Collaboration Project and National Girls Collaborative Project

Webinar:
Is Your Website Accessible? How Do You Find Out?

We will begin at 10 AM Pacific/ 1 PM Eastern
Webinar Agenda

1. Overview of NGCP & CSCP
2. Is Your Website Accessible? How Do You Find Out? Terrill Thompson, Technology Accessibility Specialist, AccessComputing, University of Washington
3. Questions & Answers
4. Closing (webinar evaluation and upcoming webinar information)
The National Girls Collaborative Project (NGCP) brings together organizations that are committed to informing and encouraging girls to pursue careers in science, technology, engineering, and mathematics (STEM).

www.ngcproject.org
Project Goals

1. Maximize access to shared resources within projects and with public and private sector organizations and institutions interested in expanding girls’ participation in STEM.

2. Strengthen capacity of existing and evolving projects by sharing promising practice research and program models, outcomes and products.

3. Use the leverage of a network or collaboration of individual girl-serving STEM programs to create the tipping point for gender equity in STEM.
Project Focus
2011-2016

• Strengthen the capacity of girl-serving STEM programs to effectively reach and serve underrepresented girls in STEM.

• Increase the effectiveness of Collaboratives by providing professional development focused on sustainability, organizational effectiveness, and shared leadership.

• Maximize K-12 school counselors’ access to and use of relevant, high-quality resources that increase awareness of barriers to girls’ interest and engagement in STEM.
The Computer Science Collaboration Project aims to efficiently increase participation of underrepresented groups in computer science opportunities and activities by effectively building collaborations between K-12, community-based organizations, higher education, and industry.

www.cscproject.org
Project Goals

• **Build collaborations** between CSC Project participants to increase participation and engagement of **underrepresented youth** in computer science opportunities and activities.

• **Maximize access to shared resources** among project participants that are interested in expanding and broadening participation in computer science.

• **Strengthen the capacity** of existing and evolving K-12 formal and informal programs in computer science by supporting the use of exemplary practices.
Is Your Website Accessible?
How Do You Find Out?

Terrill Thompson
Technology Accessibility Specialist

tft@uw.edu
@terrillthompson
“Accessible” to whom?
Everyone!
Ability on a continuum

Not able

See
Hear
Walk
Read print
Write with pen or pencil
Communicate verbally
Tune out distraction
etc.

Able
Old School Technologies
Today: Technological Diversity
We All Have Choices
Can *everyone* access your website?
The Computer Science Collaboration Project aims to efficiently increase participation of underrepresented groups in computer science opportunities and activities by effectively building collaborations between K-12, community-based organizations, higher education and industry.

The Computer Science Collaboration Project uses the most successful elements of the National Girls Collaborative Project (NGCP) to connect the various alliances and K-12 outreach organizations that are part of the Broadening Participation in Computing (BPC) community, specifically focusing on outreach to and collaboration with persons with disabilities, African Americans, Hispanics, American Indians, Alaska Natives, Native Hawaiians, Pacific Islanders, and women.

Example site courtesy of: cscproject.org
How do you know whether your website is accessible?
Web Accessibility Standards

- W3C Web Content Accessibility Guidelines (WCAG) 2.0
  http://w3.org/TR/wcag20
  – Level A (basic), AA, & AAA
- Section 508 Standards
  http://access-board.gov/508.htm
- W3C Accessible Rich Internet Applications (ARIA)
  http://w3.org/TR/wai-aria
Checking Web Accessibility in 5½ Steps

1. Test pages without a mouse
2. Check headings
3. Check images for alternate text
4. Check color contrast
5. Check everything else (using an accessibility checker)

5½. Test pages with diverse users
Test #1: Test page without a mouse

• Is there clear visible focus? (i.e., Can you tell where you are?)
• Can you access all features and controls?
Test #2: Check headings

• Use “Outline” button on WebAIM Toolbar:  
  http://wave.webaim.org/toolbar

• Use “Structure” button in Web Accessibility Toolbar for IE:  
  http://paciellogroup.com/resources/wat-ie-about.html

• Check source code with Firebug:  
  http://getfirebug.com
Engaging Youth with Disabilities 2012 Mini-Grantees

The following projects Engaging Youth with Disabilities in computer science have been selected for mini-grant funding.

The Engaging Youth with Disabilities with Microsoft KODU, Basic Computer Game Development project is led by the Boys & Girls Club of Fitchburg and Leominster. Project activities will take place in Massachusetts where for two hours a day, twice a week for ten weeks, middle school students will learn to create their own worlds while learning the basics of game development. In addition, faculty from Fitchburg State University will speak with students about career exploration in the fields of education, computers and other media. Partnering organizations include FLLAC Educational Collaborative at Caldwell Alternative Middle School and Fitchburg State University.

Project E.S.T.E.E.M (Experience Science, Technology, Engineering, Electronics, and Math) is led by Trinidad State Junior College. Project activities will take place in Colorado during this one day event. High school students will assemble robots and interact with college students with disabilities enrolled in Computer Science, Graphic Design and Precision Machining programs at Trinidad State Junior College. Parents will join in during the dinner activity to learn about the project. Partners include San Luis Valley Board of Cooperative Educational Services (BOCES) and San Luis Valley Transitioning Interagency Group Envisioning the Realization of Self (T.I.G.E.R.S.).

The Computer Science Fun Day events will be led by the Alabama Computer Science Camps at Auburn University. During this one day event middle school and high school students with physical disabilities along with their parents will have the opportunity to learn about computer science,
Engaging Youth with Disabilities 2012 Mini-Grants

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Engaging Youth with Disabilities 2012 Mini-Grantees
Supplement Headings with...

- “Skip to Main Content” link
- ARIA Landmarks
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ARIA Landmarks

- role="banner"
- role="navigation"
- role="main"
- role="complementary" (e.g., sidebar)
- role="contentinfo" (e.g., footer)
- Also “form”, “search” & "application"

Examples:
<ul role="navigation">
  <div role="main">
    <ul role="navigation">
      <div role="main">
    </div>
  </div>
</ul>
Test #3: Check images for alt text

• Do all informative images have alt text?
• Does the alt text provide access to the message that’s being communicated by the image?
• Do all decorative images have alt=""? (or better yet, is CSS used to display them as background images?)
The Computer Science Collaboration Project aims to efficiently increase participation of underrepresented groups in computer science opportunities and activities by effectively building collaborations between K-12, community-based organizations, higher education and industry.

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Current Reports

Basics About Disabilities and Science and Engineering Education
by Ruta Sevo
Image Location:
cscplogo.gif

URL is relative to page location

Tooltip:

Alternate text: The Computer Science Collaboration Project

Image Preview

Advanced Edit...

Cancel OK
The Computer Science Collaboration Project aims to efficiently increase participation of underrepresented groups in computer science opportunities and activities by effectively building collaborations between K-12, community-based organizations, higher education and industry.
Test #3: How to check images

• Use “Images” button on Web Developer Toolbar:
• Use “Images” button in Web Accessibility Toolbar for IE:
  http://paciellogroup.com/resources/wat-ie-about.html
• Check source code with Firebug:
  http://getfirebug.com
Test #4: Check color contrast

• Use The Paciello Group Contrast Analyser: [http://paciello.com/resources/contrast-analyser.html](http://paciello.com/resources/contrast-analyser.html) (comes with WAT for IE)

Test #4 Example 2

MINI-GRANTS

- Engaging Youth with Disabilities Mini Grants
  - Engaging Youth with Disabilities 2012 Mini-Grant

Project Criteria

Information Document
Download

Engaging Hispanic/Latino(a) Mini Grants

Colour Contrast Analyser

Options Image Help

Foreground
Colour select: ▼ Hex: #005A8C

Background
Colour select: ▼ Hex: #F4F4F4

Algorithm
- Colour brightness/difference
  - Luminosity

Show contrast result for colour blindness

Result - Luminosity
Contrast ratio: 6.7:1
- Pass (AA)
- Fail (AAA)

Pass (AA)
Pass (AAA)
Test #5: Check everything else

- WAVE: http://wave.webaim.org
- Functional Accessibility Evaluator: http://fae.cita.uiuc.edu/
- AChecker: http://achecker.ca/checker
Uh oh, WAVE has detected 1 accessibility error
Test #5½: Test page with diverse users
Always Consider Accessibility

• When creating documents
  – Microsoft Word and Adobe PDF both support alt text on images, headings, and other accessibility features
    – http://uw.edu/accessibility/pdf.html
• When considering which technologies to use
Questions to Always Ask When Choosing Technologies

• Is it accessible?
• Can users perform all functions without a mouse?
• Has it been tested using assistive technologies such as screen readers?
• If it supports audio, does it support captions?
• Is accessibility documentation available?
• If it’s an authoring tool, how does one create accessible content with it?
The Web Accessibility Building Institute (WABI) was funded by the National Science Foundation (cooperative agreement IIS-0939159) and directed at the University of Washington. The purpose of the grant was to develop strategies that lead to systemic change.

The ultimate goal is for all students to have easy access to educational software and information. The institute aims to create an accessible academic environment that includes study skills, administrative web applications, and online learning management systems.

Successful participation of people with disabilities in STEM careers is a major goal of the institute. Higher education institutions are exploring and beginning to incorporate accessibility into their web-based course content and online learning tools, including those that are used to provide administrative services to students and employees with disabilities. It is crucial for these institutions to incorporate flexible technologies such as AJAX, Flex, and Flash.

WABI is a partnership among the World Wide Consortium (W3C), IBM, Google, Yahoo, Adobe, and Microsoft, with input and assistance from universities and major employers across the United States.

Agenda

The agenda for the CBI was as follows:
Is this webinar accessible?
For more information...

• Terrill’s slides and other resources
  http://staff.washington.edu/tft

• Terrill’s blog
  http://terrillthompson.com

• University of Washington IT Accessibility
  http://uw.edu/accessibility

• AccessComputing
  http://uw.edu/accesscomputing
Additional Project Resources

Program Directory
- www.ngcproject.org/directory (NGCP)
- www.cscproject.org/index.php?q=pd (CSCP)

Facebook
- National Girls Collaborative Project
- Computer Science Collaboration Project

Archived Webinars
- www.ngcproject.org/resources/webcastarchive.cfm (NGCP)
Additional Project Resources

Upcoming Webinar

NGCP/CSCP Joint Webinar: Collaboration Best Practices
September 12, 2012, 11:00 AM - 12:00 PM Pacific