



Newsletter

September, 2018 (V12 N1)

Your CSN (CTN, SIGCT, SIGCS) Officers and Leadership Team provide this publication which is intended to notify you about CSN activities, ISTE 2019 conference info, upcoming events, notable news, resources, links and just about anything else that is useful for CSN members. To contribute to this newsletter, please email Joe Knoch <joe@jknoch.com>. Social media information (Facebook, Wiki, LinkedIn and Twitter) is located at the end of this newsletter. The entire CSN Leadership Team is listed on our wiki: <http://istecsn.pbworks.com>

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Detroit, Michigan on October 6-8, 2018

The [program is live on the event site](#), and among the speakers are our President, Kimberly Lane Clark and Leadership Team member Jorge Valenzuela. The event's workshops will fall into one of the five following categories: AR, VR & Mixed Reality; CS Across the Curriculum; Make the Case for CS; CS for Young Learners; and Maker & Robotics. Each of these categories will have 5 workshops spread out across the weekend. Attendees can feel free to pick a track and stick with it, or explore all categories. There will also be interactive playgrounds and a CS Expo. Seats are limited, so don't miss out on [your chance to register!](#)



The **CSforALL 2018 Summit** will be held in Detroit on Tuesday, October 9, 2018. This summit is designed to amplify the work of stakeholders engaged in building K-12 computer science education in the US, both in and out of school. It will be live-streamed nationally, and will include an in-person audience of carefully selected school district delegations, commitment-making organizations, and community leaders.

The Summit is an invitation-only event geared toward organizations making commitments to advance the national CSforALL movement as well as invited special guests. The event will be live-streamed nationally and will include an in-person audience of carefully selected school district delegations, commitment-making organizations, and community leaders. If you meet this requirement and would like to request an invitation please complete [this form](#).



Computer Science Network Events Planning has begun for ISTE 2019 in Philadelphia, June 23-26, 2019

new → **ISTE 2018 Annual Conference in Philadelphia - Call for Proposals.** Please consider submitting one or more session proposals for this conference. The submission deadline is September 27, 2018. We are certainly looking for great proposals for our computer science strand. Additionally, given the breadth of interests within our membership, you might also consider submitting a session based on another area of interest (eg, science, English, special ed, etc) where computer science and computational thinking play an important part. You can submit a proposal by going to https://conference.iste.org/2019/presenters/submit_proposal.php

Consider volunteering for the following activities

*Please [fill out this form](#) if you are interested in volunteering...

- **Review CS/IT proposals for ISTE 2019** - If you are thinking about attending ISTE 2019 and/or are thinking of possibly presenting, this is a great way to see what others are doing. You would be reviewing the 2019 computer science ISTE proposals. This will occur in early October after the September window for proposals is closed. More information as we find out.

- **CS Firehose** - Join the ISTE Computer Science Network as we open the valves and turn on the **CS FIREHOSE 2019 with a very special set of sessions totally focused on computer science and computational thinking**. If you have ideas about potential keynote presenters, or just love to help with logistical planning, this is the volunteer opportunity for you. **Prepare to get *drenched*** with new and exciting CS info, resources, and ideas.
- **CS/CT Playground** - We continue our goals to engage those registering and to increase interest in computer science (CS) and computational thinking (CT). Our intent with the exhibits is to not duplicate sessions and posters which will occur abundantly throughout ISTE 2019. Instead we find opportunities to engage students and adults to demonstrate exciting technologies being used in classrooms. We need volunteers to help organize and facilitate the playground sessions during the ISTE conference.
- **CS/CT Strand** throughout the Conference - If you only have a few hours of time, but want to make a difference in CS education, volunteers will look for and recommend sessions to be identified as CSN Picks for the ISTE 2019 conference. We look for sessions we believe are particularly appropriate to CS and CT in addition to other CS-oriented strands based in other domains
- **The Third Annual CSN Excellence in Education Award**. This volunteer opportunity involves reaching out to 3-5 of your colleagues encouraging them to apply for this prestigious ISTE 2019 award. This award recognizes exceptional educators and leaders who are championing the cause of improved Computer Science and Information Technology education. Those recognized demonstrate exemplary work providing a model for teaching, learning and leading in this endeavor. Previous winners have been Kimberly Lane Clark (2017 and our current CSN President) and Jorge Valenzuela (2018 and now a CSN Leadership Team member)
- **CSN Members Discussion** -We are gathering volunteers who are passionate about discussing relevant CS topics. For this volunteer activity, ISTE Connect CSN members will be asked to moderate 1 question, 2 times per year on a topic you are passionate about. A calendar will be sent out so that you know which months you are responsible for.

Other CSN activities at ISTE 2019 will include:

- Focus on new ISTE Computer Science Educator Standards
- Involvement in the **ISTE Communities Networking Fair** (Professional Learning Networking Fair) on Sunday, June 23, 2019
- **Activities around our CS/CT book series**
- **Specific K-8 Activities** and Discussions.
- **Activities with our collaborators** - NCWIT, the local CSTA chapter, WeTeachCS.org, CS4TX.org and Code.org

If you are interested in helping develop these events or have additional ideas, please contact the editor of this newsletter <joe@jkmoch.com>

*** Plan on exciting times at ISTE 2019! ***

Computer Science Network News

Interactive 3-D Professional Development brought to you by...

ISTE

COMPUTER SCIENCE NETWORK

JOIN US FOR THE 2018-19 SCHOOL YEAR

Using Flipgrid and Google Docs, this PD model will provide you with evidence that can be aligned to any educator effectiveness model.

Join us at: <https://flipgrid.com>
Code: 629e42

Standard 1: Computational Thinker - Learner
Launch: 9/17/18

Standard 2: Computational Thinker - Facilitator
Launch: 11/12/18

Standard 3: Creativity & Design
Launch: 3/4/19

Standard 4: Collaborating Around Computing
Launch: 1/14/19

Standard 5: Communicating About Computing
Launch: 5/6/19

Standard 6: Equity & Inclusion
Launch: ISTE 2019

GRID Password = ISTE_csn (case sensitive)

Interested in an awesome Professional Development Opportunity?

September 17th the CSN will launch our new PD model in which you can earn badges and a final certificate for your Professional Portfolio (Educator Effectiveness) during the month of May. There will be videos, resources and ideas GALORE for each one of the new ISTE computer science standards!



You still have time to sign-up! Please post a quick 60 sec or less video introducing yourself to our PD community.

As we develop our CSN Webinar series into the future, we certainly invite your ideas and interest in volunteering. Please contact our Professional Development chair, Heidi Williams <heidi@stretchinstructor.com>, with your ideas and your interests. Eight webinars from previous years are at our wiki site <<http://iste-ctn.wikispaces.net/Current+Webinars>>

Computing Education News

updated → **CS in K-8 #CSK8 Twitter Chats.** These popular hour-long Twitter chats continue on the 1st and 3rd Wednesdays of every month at 5pm PT/8pm ET for the 2018-2019 school year. Coming up: The September Twitter chats will be



- Sept 5 and the topic is Let's Get This Year Started and is about sharing summer learning and how you start the school year
- Sept 19 and the topic will be the first in a series of chats about CS and Cross Curricular Connections.

The co-leaders are Vicky Sedgwick and Sheena Vaidyanathan. Vicky and Sheena host a Google+ community for K-8 CS

<<https://plus.google.com/communities/11118dsaaa03101139836526905>> and a Facebook group: <<https://www.facebook.com/groups/CSTAK8/>>. You can see their calendar at https://calendar.google.com/calendar/embed?src=8l8em5hfa1f8456abbicqac3r8%40group.calendar.google.com&ctz=America%2FLos_Angeles

New

HELP ISTE REFRESH THE CS EDUCATOR STANDARDS!

The ISTE **draft standards** are ready for your review!
Please take time to read over them.

Throughout 2018, ISTE will collaborate with the education community to update the ISTE Standards for Computer Science Educators. This process is an opportunity for thought leaders in computer science (CS) education and educators at all levels to help ISTE develop the next generation of computing education standards and define a new framework for problem-solving in K-12.

This refresh comes as we recognize that if CS must be an integral part of students' educational experience, it must also be a critical component of educator practice. The new standards will establish a vision for the knowledge, skills and dispositions educators need to effectively teach CS to all students and will guide professional learning for all educators.

New → Now Recruiting for the Next ECS Cohort

We are excited to announce an awesome opportunity for Exploring Computer Science (ECS) teachers. TALECS would like to help second year+ ECS teachers continue in their professional learning by reflecting on student learning, classroom environment, assessment practices, and creation of assessment tools.



The TALECS professional development is all online—with intensive activity in October, January, and March, and community of practice activities in between. You can expect to devote about three hours per week to TALECS during those three months.

Want to know more? Check out our blog post. If you're interested in participating, contact our partners at TALECS@sri.com. Now Recruiting for our Next Cohort!

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new stuff → **CS for All Newsletter**. This excellent resource is available if you [Join the CSForAllTeachers Community](#) and sign up for the CS for All Teachers Notifications and the Newsletter. Recent blog posts, upcoming webinars and resources are noted in their weekly newsletter. Here are recent entries:

Blog Posts

- [Effective Strategies for Computing Educators in Alternative Settings](#) published on 10/10/2016
- [TALECS - Online Professional Learning Opportunity for 2nd Year+ ECS Teachers](#) published on 08/07/2018

DISCUSSIONS:

- [After School Club? or In School Club](#) published on 08/26/2018)

RESOURCES:

- [Micro:bit and Python in Browser with Firia Labs](#) published on 08/10/2018

Student Opportunity

NCWIT Aspirations Application Period is OPEN to all HS females. Please see the NCWIT Resources section several pages down

new → [ACM/CSTA Cutler-Bell Prize in High School Computing](#). This prize is designed to recognize talented hs students intending to continue their higher education in the areas of computer science or technology. Up to four winners will be selected annually and each will be awarded \$10,000 prize which will be administered through the financial aid department at the university the student will attend. The application period is open now and will close January 5, 2019 and winners are expected to be announced in February 2019.

new → [Code Quest 2018](#). Grok Learning's Code Quest is a friendly five-week coding competition where thousands of school students come together to learn to code. Teachers can sign up their students, and students competing



individually at home are also welcome! Streams available in Blockly, Python and micro:bit. The competition dates are from October 29, 2018 to December 2, 2018.

<https://groklearning.com/codequest/?utm_campaign=codequest-2018&utm_medium=email-non-users&utm_source=sci-com-today&short_url=get.gl%2Fcodequest18-scicom>

new → **Bebras Challenge (US)**. November 5-16, 2018 → Bebras US Computational Thinking Challenge. Bebras is an international **computational thinking** challenge that started in Lithuania more than 10 years ago. Last year about 1,000,000 students participated globally. You can register as a teacher at <<http://challenge.bebraschallenge.org/admin>>. All USA students are welcome. There are contests for about 20 other nations, also. You can find the other nations' contests by going to <<http://www.bebras.org/?q=countries>>



If you go to <<http://bebraschallenge.org>> you can register for the November competition and can try the Practice Challenge (login not needed for practice). There is a document entitled Coordinators' Instructions available at <<http://bebraschallenge.org/files/CoordinatorsInstructions.pdf>>

More details → Bebras is an international initiative whose goal is to promote computational thinking for teachers and students (ages 8-18 / school years 3-12). The challenges are made up of a set of short questions called Bebras tasks and are delivered via the cloud. The tasks can be answered without prior knowledge about computational thinking or computer science but are clearly related to computational thinking concepts. To solve the tasks, students are required to think in and about information, discrete structures, computation, data processing, and algorithmic concepts. Each Bebras task can both demonstrate an aspect of computational thinking and test the talent of the participant.

new → **American Computer Science League** ACSL organizes computer science contests and computer programming contests for junior and senior high school students. In their 39th year of continuous operation, they are announcing an Elementary Division (grades 3-6). More information is available on their site.



Over 200 teams in the United States, Canada, Europe, Africa and Asia are participating. ACSL is on the approved activities list of the National Association of Secondary School Principals (NASSP) and is an institutional member of CSTA.

Their yearlong contest is in 4 rounds. The last day to give and score round 1 is Friday, December 21, 2018. This is worth checking into even if to just have access to their wealth of short answer and programming problems over the years. <<http://www.acsl.org>>

new → **Professional Development/Conference Opportunities**

Tapia Conference 2018. Officially known as the ACM Richard Tapia Celebration of Diversity in Computing, this will be held in Orlando, FL on September 19-22, 2018. The Tapia conference has always been a premier venue to acknowledge, to promote and to celebrate diversity. Given the current global academic, professional and societal climates, the Tapia 2018 conference theme, "**Diversity: Roots of Innovation**", recognizes the Tapia Conference's commitment to diversity in all its wonderful forms. <<http://tapiaconference.org>>

2018
TAPIA
Conference



Grace Hopper Celebration of Women in Computing (GHC). This is the world's largest gathering of women technologists. GHC is produced by the Anita Borg Institute and presented in partnership with ACM. Attendance has risen dramatically in recent years. In 2013 there were 4500 attending and now in 2018 over 20,000 attendees are expected for this conference held from September 26-28, 2018 in Houston, TX. Unfortunately, general registration for GHC 18 has closed. If you weren't able to secure a registration, subscribe to the [GHC General Newsletter](#) to get information about how you can participate via livestreaming, viewing parties, social media, and blog posts from community members. <<http://ghc.anitaborg.org>>



sySTEMnow-2018. This one day conference in Milwaukee, WI, is scheduled for Tuesday, November 7, 2018. Kelly List Wells, Executive Director for Education and Skills at the GE Foundation, is the keynote speaker. In its 15th year, this regional conference attracts both educators and businesses interested in raising awareness of STEM-related issues including best practices, developing education-workforce partnerships and providing networking opportunities for STEM stakeholders. In recent years there has been a strong strand of computer science sessions. Further information is available at <<http://www.stemforward.org/systemnow/>>



FETC-2019. This is the 39th national Future of Education Technology Conference which will be held in Orlando, FL from January 27-30, 2019. Similar in some respects to TCEA and ISTE, FETC does include sessions involving computer science, computational thinking and teaching IT. There will also be a CS Firehose similar to the one at recent ISTE annual conferences. <<http://fetc.org>>



TCEA-2019. The 39th Annual TCEA Convention and Exposition will showcase over 1000 sessions and 450 exhibitors for every educator to discover new ways to engage students and enhance learning. The conference includes sessions related to computer science, computational thinking and teaching IT. TCEA-2019 runs from February 4-8, 2019 in San Antonio, TX. Registration opens September 13, 2018. <<http://tceaconvention.org>>



SIGCSE 2019. To be held in Minneapolis, MN, February 27-March 2, 2019, the theme for SIGCSE 2019 is Celebrating our 50th Anniversary!. SIGCSE 2019 welcomes over 1500 colleagues from around the world to present demos, lightning talks, papers, panels, posters, special sessions, and workshops, and to discuss computer science education in birds-of-a-feather sessions and informal settings. The SIGCSE Technical Symposium addresses problems common among educators working to develop, implement and/or evaluate computing programs, curricula, and courses. The symposium provides a forum for sharing new ideas for syllabi, laboratories, and other elements of teaching and pedagogy, at all levels of instruction. <<http://sigcse2019.sigcse.org>>

CSTA 2019 Annual Conference. Get ready for this always excellent conference totally focused on K-12 computer science. The dates are July 7-10, 2019 in



Phoenix, AZ. Plenty of workshops, sessions, opportunities to network and have fun together with colleagues from across the country who share the same joys. More info coming in the next several months.

For your future planning → Plans are already being made for the next Scratch Day on December 1, 2018 at Teachers College, Columbia University, New York City. There will be workshops on a wide range of Scratch topics for Scratch beginners and those who have been Scratching for years. Scratch Day is for people of all ages



- Teachers, bring your students!
- Parents, bring your children!

- Children, bring your parents and teachers!

Please go to <<http://logofoundation.org/scratchday>> to see what happened at Scratch Day in December, 2017 and in previous years.

NEW → *Your Reading Assignments*

From our 2018 CSN Educator of the Year Award Jorge Valenzuela How-to blog(s) (Computer Science & STEM):

- [How to Develop Computational Thinkers](#)
- [Computer Programming in 4 Steps](#)

2018 (Software) Developer Skills Report

The site Hackerrank surveyed their community to get a pulse on developer skills (when did they push code for the first time, how do they learn coding, what are the favorite languages and frameworks, what do they want in a job, what hiring managers want in a candidate, and more).

Some results I found interesting:

- Even though new languages arise frequently, it's most important for developers to master core, legacy languages. By and large, employers' most common requirement today are: JavaScript, Java, Python, C++, and C. (pg 3)
- Frameworks: JavaScript is ruling the web. Most often, employers want developers who know AngularJS, Node.js, and React. (pg 3)
- Demonstrating computational thinking or the ability to break down large, complex problems is just as valuable (if not more so) than the baseline technical skills required for a job. (pg 4)
- There's a popular belief that recruiters favor candidates with CS degrees from prestigious universities. But it turns out that they actually care about what you've done (pg 4)
- Companies are looking at GitHub and projects to supplement resumes and evaluate skills better (pg 4)

... From the June, 2018 issue of this newsletter

Careers With Code. Careers with Code is a magazine that inspires high school students to use problem solving computer science skills to create the future. Careers with Code redefines stereotypes around what a computer science career can be. It's a one-stop magazine for resources, step-by-step checklists and inspiring ideas to help students create their computer science pathway.



<<https://careerswithcode.com/careers-with-code-magazine/>>

Here's an assignment for you - find an article you'd like to have your students read and **create a little lesson around it** - encourage discussion, maybe do some research. If you send them to the editor Joe Kmoch <joe@jkmoch.com> we can include them in future Newsletter issues.

Note that you can purchase copies for \$5 each or \$4 each for 11-50 copies, down to \$2 each for 101+ copies. You can also purchase the 2016 version for \$1 each.

Monthly CSN Newsletter readings October 2012 - May 2018

<<http://istecsn.pbworks.com/w/page/125926169/Monthly-Newsletter-Readings>>

National Center for Women and IT (www.ncwit.org)



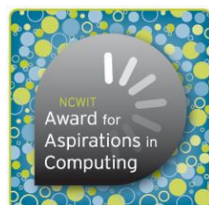
The National Center for Women & Information Technology (NCWIT) is a non-profit community of more than 1,100 universities, companies, nonprofits, and government organizations nationwide working to increase girls' and women's meaningful participation in computing. NCWIT equips change leaders with resources for taking action in recruiting, retaining, and advancing women from K-12 and higher education through industry and entrepreneurial careers. Find out more at www.ncwit.org/resources or email us at info@ncwit.org

NCWIT Resource of the Month:

Award for Aspirations in Computing - applications open

<http://www.ncwit.org/programs-campaigns/aspirations-computing>
and <http://www.aspirations.org>

NCWIT Aspirations in Computing (AiC) provides technical girls and women with ongoing engagement, visibility, and encouragement for their computing-related interests and achievements from high school through college and into the workforce. AiC Community members are supported by their peers, volunteers, and NCWIT Alliance member organizations that offer exclusive access to scholarships, internships, and professional work. Community members also give back to others by planning and leading computing experiences for middle school girls and high school women. These opportunities allow women of the Community to strengthen their leadership, technical, and entrepreneurial skills, further preparing and motivating them to participate in the computing workforce.



AiC serves 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands, and all U.S. military bases overseas.

Find out more at www.aspirations.org/participate/high-school.

Visit www.ncwit.org/resources for additional resources; email info@ncwit.org to request hardcopy resources.

Several links...

If you have favorite links you'd like to share (we could use some on IT topics such as networking, support, information systems and web design), please email Joe Kmoch.

< joe@jkmoch.com >

This month...

Coding & Robotics K-8 is a free professional learning community that supports teachers, administrators, and all educators to help students explore coding and robotics and develop math, logic, critical thinking and problem solving skills, and challenges them to think creatively. For teachers, there are new and exciting tools to engage students in creative instruments that combine computational thinking with real world application. Might be worth a look-see though it is focused on Wonder Workshop Dot and Dash robots. <<https://www.edweb.net/5a024a48/>>

Vidcode. Vidcode is a female founded coding company that provides software, curriculum and professional development built with diversity in mind every step of the way.. They were one of the interactive exhibits in the ISTE 2018 CSN Playground. <<https://www.vidcode.com/>>

Contact Joe Kmoch <joe@jkmoch.com> to include an item in the next issue.

Social media links:

- CSN Community: <http://bit.ly/computing_teachers_network> (site registration needed)
- CSN on Facebook: <<https://www.facebook.com/pages/ISTE-CTN/132261473482000>>
- CSN on ISTE Wiki: <<http://iste-csn.wikispaces.com>> also <<http://istecsn.pbworks.com>>
- CSN on LinkedIn: <<https://www.linkedin.com/groups/6784194/profile>>
- CSN on Twitter: <https://twitter.com/ISTE_CTN>

reminder → **Joining the ISTE Website and Communities.** If you have not already signed up for our Computer Science Network **please visit the site**

<<http://connect.iste.org/connect/learningnetworks>>, choose Computer Science Network.