



Newsletter April, 2018 (V11 N8)

Your CSN (nee CTN, SIGCT, SIGCS) Officers and Leadership Team provide this publication which is intended to notify you about CSN activities, ISTE 2018 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 Kmoch <joe@jkmoch.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://iste-csn.wikispaces.com/home#Leadership>

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new → new → new → new → new → new → new → new

**Jorge Valenzuela - winner of the 2018 Computer Science Network Excellence Award
Congratulations Jorge!**

A little information about our 2018 CSN winner



[Jorge Valenzuela](#) has served as an educator for the past 14 years and holds both computer science and administrative credentials. He coaches hundreds

of educators- both face to face and virtually in [Computer Science, Backwards Design Planning, Project-Based Learning](#) (PBL) and the internationally acclaimed [Engineering by Design](#) curriculum. He delivers motivational keynotes for universities, school divisions, and educational organizations and is the lead coach for [Lifelong Learning Defined, Inc](#), a [National Faculty](#) of the [Buck Institute for Education](#) and a National Teacher Effectiveness Coach with the [International Technology and Engineering Educators Association](#).

Kimberly Lane
ISTE CSN PLN President
Blended Learning Specialist
Lancaster ISD



CSN - the BIG Events Being Planned

ISTE 2018 [Registration and Housing Now Open](#)

update → **CSN and ISTE 2018**. Based on our experiences in the last two years and with your help, we intend to have the following events in the same or similar format:

- **update** → **CS Firehose** - The ISTE Computer Science Network (CSN) is pleased to announce *CS Firehose 2018* ... an intense series of interlocking sessions preceding the ISTE Chicago Conference and Exposition the afternoon of Saturday, June 23 at location TBA in the McCormick Place West building.

The *CS Firehose* is scheduled from noon through 6:00 PM with sessions which will address the many interrelated educational initiatives, ideas, and curricula which focus on computational thinking and computer science. Three concurrent strands throughout the afternoon are planned ... each strand consisting of related presentations or activities provided by quality professional development leaders and educators including those from Microsoft (ISTE Mission Sponsor), Google for Education (ISTE 2018 Gold Sponsor), WeTeach_CS, code.org, MIT Media Lab, BirdBrain Technologies, Unity3D, and many more. And a very special keynote from a true champion of computer science education is scheduled: **Dr. Mitch Resnick**, LEGO Papert Professor of Learning Research at the MIT Media Lab and creator of the Scratch programming language. Attendance is FREE but pre-registration is required via the ISTE conference website:

<https://conference.iste.org/2018/>

The need for CS educational programs is dire with critical worker shortages throughout the field. Yet, at state and local levels, there is a severe shortage of qualified professional educators to teach computer science and cultivate young minds to think computationally. The goal of the Computer Science Network is to help computing educators at every level to discover what is available and to provide the opportunity to immerse themselves in a variety of approaches and curricula. So, plan to join us as we

open the valves and turn on the *CS FIREHOSE!*

- **update** → **CS/CT Playground** - Our Playground will again be on Sunday, June 25, 2018 from 12:30pm - 4:00pm and be in a high traffic area. 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 occur abundantly throughout ISTE 2018. Instead we find opportunities to engage students and adults to demonstrate exciting technologies being used in classrooms.
 - A team from Code.org led by Megan Cicconi will involve visitors with various aspects of the Code.org curriculum;
 - We intend to engage Chicago Public Schools students in demonstrating curriculum used in the CSForAll project
 - We will have students exhibiting projects using various technologies including robotics and other physical computing as well as fablabs and other “different” experiences with free and commercial products.
 - NCWIT will have a significant presence in our Playground with their Aspirations and Aspire-IT programs as well as their materials.
 - Want to be involved? Contact Joe Knoch <joe@jkmoch.com>
- **CS/CT Strand** throughout the Conference - Look for the sessions identified as CSN Picks for sessions we believe are particularly appropriate to CS and CT in addition to other CS-oriented strands based in other domains
- **The Second Annual CSN Excellence in Education Award Plaque will be awarded to Jorge Valenzuela during ISTE (see the top of this newsletter for more about Jorge).** This 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.
- **Produce a list of activities** of interest to CSN members - we will continue to produce a list of sessions, posters, panels, etc which may be of interest to all or a segment of our CSN membership; for 2017 this list exploded to about 160 such activities, about 3-4 times as many as the previous year.
- **CSN Members Discussion** - the CSN Leadership will again schedule the PLN Lounge where the membership and leadership can talk about the future of CSN.

Other CSN activities at ISTE 2018 will include:

- **Collaborators.** We engage these groups: NCWIT, the local CSTA chapter, WeTeachCS.org, CS4TX.org and Code.org in our efforts again.
- Involvement in the **Communities Networking Fair** (Professional Learning Networking Fair) on Sunday, June 24, 2018 from 3:00pm - 5:00pm
- **Activities around our CS/CT book series**
- **Specific K-8 Activities** and Discussions.
- A **CSN Social** co-hosted with NCWIT at a local establishment.

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

*** **Plan on exciting times at ISTE 2018!** ***

Computer Science Network News

updated → Webinars, Webinars, Webinars!

Recent NASA Webinar with tremendous set of resources.



Here is the [archive](#) from the workshop:

Resources from the virtual workshop:

- [ISTE NASA Google+ Community](#)
- [ISTE resources for Coding](#)
- [Demystifying Coding presentation](#)
- [Ben and Jared's paper circuits they print out](#)
- [Example of 3D printing a Raspberry Pi Case](#)
- [Another 3D Printing Raspberry Pi Case](#)
- [Running the Python app for Raspberry Pi](#)
- Block Coding sites:
 - [BlocksCAD](#)
 - [Scratch](#)
 - [Tynker](#)
 - [OzoBlockly](#)
- Participant submissions using one of the Block Coding resources: <https://goo.gl/D1kk9c>
- [BlocksCAD 3D](#)
- [AstroPrint](#) is a free web-based slicing software

Trae Winter's mentioned resources:

- [Stackoverflow.com](#)
- [RaspberryPi.org](#)
- [How to create LED blinking light with Raspberry Pi from Instructables.com](#)
 - [How to make LED blinking light code in Scratch](#)
 - [LEDs have polarity](#). Long side is +
- [Trae's snippets of Python code](#)
- [Paper circuits](#) as a way to understand Raspberry Pi circuits
- [Astropi](#) has experiments for students tied to the Raspberry Pi on the International Space Station (ISS)
- Create a weather station with Raspberry Pi and the Sense Hat module
- [Raspbian](#) is the "windows" style operating system to allow a Rasp Pi to hook up to a monitor and run code
 - Raspbian comes with Scratch built-in.

Another excellent webinar with plenty of great resources → Google's Resources for K-12 Computer Science. Tiffany Walter - the Educational Program Manager from Google presented the large variety of resources freely available from Google. Prizes were given away at the end of the webinar (see what you missed by not attending live?! This webinar is archived at <http://iste.adobeconnect.com/pry8l5z15nei/>) and definitely worth your time. This is part of our CSN Webinar series.

A super important topic and the basis for CSForAll (and we really mean ALL) → Digital Equity in Computer Science. A discussion focused around this topic presented by the ISTE Digital Equity (DE) PLN. Panelists included our own CSN President, Kimberly Lane Clark, a Blended Learning Specialist in Texas; Jason Chong, Teacher on Special Assignment in

Fullerton, CA; Tara Linney, Ed Tech Coach; and Wes Kriesel, Director of Innovation and Instructional Support. Kim and Tara have both recently presented webinars that are listed here. <<http://bit.ly/DEwebFeb2018>>

Another recent webinar from our CSN President, Kimberly Lane → Integrating CS Across the Curriculum. Our CSN President, Kimberly Lane, led this ISTE Expert Webinar in late January, 2018. Just like reading and writing, knowledge of computer science is foundational for all students in the digital age, and yet many schools don't teach it, especially in elementary grades. In this webinar, participants will learn how to begin to integrate computer science into curriculum using Code.org, Scratch, Google CS First and many other resources. To view this webinar go to <<http://iste.adobeconnect.com/pb7pihuvsra6/>>

ISTE Professional Learning Series Archives

Go to <<https://www.iste.org/events/webinars>> and scroll down to view these archives.

You'll likely be interested in the following:

- **Bring Coding into your Classroom** - an ISTE/Verizon/Innovative Learning webinar originally presented on November 28, 2017; access the link to the recorded [archive](#) (approx. 63 min.), related resources from the webinar, additional ISTE resources (see the December newsletter for much more detail available [here](#)).
- [CoDrone and Coding in the Classroom](#) -
- [Coding for All](#)
- [Coding in the Curriculum](#) -
- [Girls CAN Code](#)
- Note - detail for each of these is in the December newsletter available [here](#)

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>>

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. Coming up:

- April 4, 2018 focus: unplugged activities for K-8 CS
- April 18, 2018 with the focus TBA.
- The May Twitterchats will be May 2 and May 16, 2018
- The final chat will occur on June 6, 2018



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

<<https://plus.google.com/communities/1118dsaaa03101139836526905>>

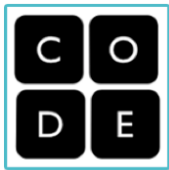
Computing Education News

new videos → I think we need more women in STEM because. This is a three part series of short videos (59-92 seconds). Only 16% of Australian STEM professionals are women. (It's about the same in the U.S.). To find out why this figure should change, Careers With STEM asked why we need more women in stem. The interviewees' answers will inspire you and your students. This goes beyond just computer science, but the issues are the same.



<https://careerswithstem.com/women-in-stem-video-1/?mc_cid=f4e0db2f76&mc_eid=2e1eeedb>
eb>

New videos from Code.org. There is quite a library of videos on the code.org site at <<https://code.org/educate/resources/videos>>. Two of the most recent are a series of six short videos focused on "How Computers Work" and seven short videos focused on "How the Internet Works". These are very well produced professional videos featuring an array of young professionals of any ethnicities and both genders. Check these out!



reminders:

[Stack Exchange for CS Educators](#)
[Careers with Code 2017.](#)



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:

- [WEBINAR – Closing the Digital Divide: How Districts Make The Technology They Have Work For CS](#) published on 2018-03-08 18:37
- [WEBINAR: AP CS Principles – Algorithms and Abstractions in the Create Performance Task](#) published on 2018-03-21 09:40
- [Coding in the Cloud](#) published on 2018-03-29 11:38

EVENTS - Recent and Upcoming:

- [WEBINAR - AP CS Principles: Algorithms and Abstractions for the Create Performance Task](#) on 2018-03-15 19:30
- [CodeHS Webinar AP CS Principles Review](#) on 2018-03-15 15:30
- [WEBINAR - Fun with Micro:bits! How This Tiny Computer Can Bring Learning and Fun to Your Classroom](#) on 2018-04-09 19:30
- [Webinar - CS in K-5 Making](#) on 2018-04-12 19:30
- [WEBINAR - Getting Students to become Storytellers with Data](#) on 2018-04-25 19:30
- STEM for All Video Showcase - Transforming the Educational Landscape from May 14-21, 2018 - save the dates; <http://stemforall2018.videohall.com> and <http://bit.ly/stem-video-showcase>

CS in the Wild

DISCUSSIONS:

- [Professional Development with the Beauty and Joy of Computing this Summer \(an AP CS Principles Course\)](#) updated on 2018-03-19 12:07

RESOURCES:

- [Ready Player One Teacher Guide](#) updated on 2018-03-27 20:43

CSP Open Group

RESOURCES:

- [Internet Resource - the evolution of the web](#) updated on 2018-03-05 13:37
- [New AP Practice Exam - from College Board](#) updated on 2018-03-20 13:17

ECS Open Group

DISCUSSIONS:

- [Unit 5 - Data - What data sets do you have your students use?](#) updated on 2018-03-07 21:40

RESOURCES:

- [Article about 72 PPI/DPI Web Resolution and A Youtube Video Explaining Image Format Pro's and Con's](#) updated on 2018-03-06 14:51
- [Tools to Talk About Data](#) updated on 2018-03-25 00:29

Student Opportunities

New → [PACTF, short for Phillips Academy Capture The Flag, Starting](#)



Soon! This is a free online cyber security and computer science competition for middle- and high-school students. Teams of up to 5 competitors will face a series of increasingly challenging problems, in which they must break, hack, decrypt, reverse engineer or do whatever it takes to find hidden answer strings known as flags. Once a team exploits the security vulnerability purposefully left in the problem material, they can submit the correct flag to receive points and improve their ranking. Challenges will be distributed across the spectrum, for beginners and for experts, and they will feature binary exploitation and reversing, cryptography, and other miscellaneous topics. Prizes totaling \$20,000 in value will be awarded to the top-ranking teams.

The competition will be at [PACTF.com](#) and will last for 2 weeks: April 16–30, 2018.

To register: <https://2018.pactf.com/register>



Reminder → [NSA Day of Cyber.](#)

This is a free, online program that allows students to experience a day in the life of the nation's top cybersecurity experts - in just three hours. Students will participate in challenging real-life cyber scenarios, discover the skills and tools used by the NSA

cyber professionals and explore the vast number of careers in cybersecurity. The NSA Day of Cyber can be run anytime. Registration is now open to Universities/Schools, Organizations, Students and Adult Learners. Let us know your experiences!
<<https://www.nsadayofcyber.com>>

updated → [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.

The logo for the American Computer Science League (ACSL) features the letters "ACSL" in a bold, red, serif font. The letters are set against a yellow rectangular background. A thin red horizontal line is positioned directly beneath the letters.

Their yearlong contest is in 4 rounds. **The deadline day for Round 4 is April 13, 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>> Their end of the year All-Star contest is Saturday, May 26, 2018 in Barrington, RI. Teams are invited based on their scores.

new → [Robo Expo 2018](#). This is event for students of all ages, with a shared interest in robotics, to come together to pursue similar goals or express themselves uniquely. Participation in Robo Expo is open to schools, home school groups, club, and any children sponsored by an adult. This will be held at the Hewitt School in New York City on Saturday, April 21, 2018 from 1:00pm - 3:15pm. [Find out more...](#)



Professional Development/Conference Opportunities

new → [Oracle Academy Scholarship for 1st Time CSTA Attendees Returns for 3rd Year!](#)

CSTA and Oracle Academy are delighted to announce that applications for [Oracle Academy Scholars - CSTA Conference Scholarships](#) are now open! For the third consecutive year, Oracle Academy will be helping to send outstanding first-time conference attendees to the annual [CSTA conference](#). Thirty three scholarships will be awarded.

To be eligible for the scholarship, teachers must fit the following criteria:

- Applicant is a first time K-12 teacher attendee of the CSTA Annual conference
- Applicant may be, but does not have to be, a teacher at an Oracle Academy member institution
- Must apply for the scholarship no later than May 1, 2018

Winners will receive a scholarship funded by Oracle Academy to attend the [2018 CSTA Annual Conference](#), up to \$1,000 per awardee, to include:

- Conference registration;
- Up to 3 nights of lodging at the conference venue (or comparable location if the conference venue is sold out);
- Travel expense support (toward transportation and meals);
- Special recognition as an Oracle Academy Scholar at the conference.

Here is the link to apply for these funds:

https://docs.google.com/forms/d/e/1FAIpQLSf1nJ8aZkYPV_Z1E3YmKrHhQPTNNKZu9u5s0neaSM1RyAK9PA/viewform

Conference link and information is below.



New → [WeTeach CS Summit 2018](#). The WeTeach_CS Summit is a 3-day event which educates, empowers, and inspires K-12 CS teachers, advocates, administrators, professional development providers, university instructors, and policy-makers to advance the goal of CS for All in Texas and beyond. This excellent conference will be held June 18-20, 2018 at Georgetown, TX.

Registration opens March 28, 2018. Full details at:

https://www.weteachcs.org/event/weteach_cs-summit-2018/

Recent → [Pathfinders Summer Institute 2018](#). Infosys Foundation USA will host this institute a national convening for K-12 teacher education in Computer Science and Making. **#InfyPathfinders** will be an intensive week of professional development to be held at [Indiana University Bloomington](#) (IUB) from July 15-20, 2018. Over 800 teachers from across the United States will convene on the IUB campus for high-quality, hands-on training for K-12 grade level Computer Science (CS) and Maker education.



Participating Professional Development Providers - see previous issues of this newsletter or review the Pathfinders Summer Institute site.

Applications for Pathfinders Summer Institute 2018 are open at <http://infyPathfinders.org>. Look at the programs being offered and apply by Monday, April 2, 2018. Note that there are limits on some programs so don't wait until April 2, 2018 to apply.

CSTA 2018 Annual Conference. Get ready for this always excellent conference totally focused on K-12 computer science. The dates are July 7-10, 2018 in Omaha, NE. Plenty of workshops, sessions, opportunities to network and have fun together with colleagues from across the country who share the same joys. <https://www.csteachers.org/page/2018conference>



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LOGO SUMMER INSTITUTES 2018

Reminder → [Logo Summer Institutes](#). Plans for the 2018 Logo Summer Institutes are underway. The following are confirmed with more dates and locations to be announced shortly

- June 11-14, 2018 in Austin Texas
- July 9-12, 2018 in New York City

These workshops are intensive immersions in creative computing for K-12 teachers, parents and technology integrators. Their approach to teaching and learning is progressive, project-based, and learner-centered. Learn to code as you explore and create projects using Scratch, Makey Makey, Hummingbird, Arduino and a variety of other hardware and software platforms. For more information and to register visit <http://logofoundation.org/summer>

Remindeer → [Scratch@MIT Conference: The Next Generation](#). Join us for the



Scratch@MIT conference on July 26-28, 2018 in Cambridge, MA. This is a playful gathering of educators, researchers, developers, and other members of the worldwide Scratch

community. We're planning a very participatory conference, with an entire day of hands-on workshops and lots of opportunities for peer-to-peer discussion and collaboration. The conference is intended primarily for adults who support young people learning Scratch. Registration is open NOW. <<https://scratch.mit.edu/conference/>>

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*

[Tech industry's diversity efforts haven't lived up to promises. A new report explains why.](#)

While not directly applicable to the high school classroom, this provides some insight into the issues around diversity in CS/IT.

<<https://www.usatoday.com/story/tech/2018/02/28/diversity-freada-kapor-klein-kapor-center-report-leaky-pipeline/378295002/>>

[Diversity Gaps in Computer Science](#). Continuing on the diversity theme, Google and Gallup continue working together on research in this area. This partnership identifies structural and social barriers students face at home, in schools and in society that could influence their likelihood to enter the computer science field. This is a 2016 report but bears repeating.

<<http://news.gallup.com/reports/196331/diversity-gaps-computer-science.aspx>>

[Five Approaches to Closing the Soft Skills Gap](#) - very important in CS and Computational Thinking, the 21st Century Skills will allow students to more fully participate in our technology-driven future. "Whether you call them soft skills, workforce-ready skills, or 21st century skills, discover how businesses are partnering with school districts to equip students with the necessary skills to succeed in college and careers. This resource provides practical recommendations for businesses and schools seeking to make an impact together and profiles five successful partnerships established by Nike, Ernst & Young, Wegmans, Wynn Las Vegas, and the Northern Kentucky Education Council." You can get this report by going to this Education Week site <<https://fs24.formsite.com/edweek/form466/fill?7=EBLAST>> Then go ahead and read it and let's discuss!

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

[The 5th 'C' of 21st Century Skills? Try Computational Thinking \(Not Coding\)](#). The author,

Suchi Grover, an expert in Computational Thinking, asks “Does current K-12 education equip every student with the requisite skills to become innovators and problem-solvers, or even informed citizens, to succeed in this world with pervasive computing?” A real thorough article exploring the importance of Computational Thinking and proposing that like our other 21st Century skills CT should pervade the curriculum. She also provides some ideas how we can integrate CT into our core academic areas.

<https://www.edsurge.com/news/2018-02-25-the-5th-c-of-21st-century-skills-try-computational-thinking-not-coding>

The Edu of Things. The author Kyle Muir muses on the music of the 80s, the recent FETC conference, the cloud becoming less important and Big Data - the Internet of Things (IOT) which generate huge amounts of data that must be analyzed immediately - this analysis could have life or death implications. A very interesting read.

<https://siliconshores.com/edu-of-things-a6b142fc15e2>

Viewpoint: There is a dark side to big data, and you can see it in the mirror. From the author: “As our ability to collect and analyze massive swaths of data continues to grow, the “big data” movement represents a paradigm shift in the way that businesses, governments, hospitals and other organizations make decisions. But many discussions of big data fail to address the users of it: humans.” <http://www.delawarebusinesstimes.com/viewpoint-dark-side-big-data-can-see-mirror/>

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

BURGER KING® and Net Neutrality The repeal of Net Neutrality is a hot topic in America, but it can be very difficult to understand. That’s why the BURGER KING® brand created WHOPPER® Neutrality, a social experiment that explains the effects of the repeal of Net Neutrality by putting it in terms anyone can understand: a WHOPPER® sandwich. This effort aims to help people understand how the repeal of Net Neutrality will impact their lives.

<https://www.youtube.com/watch?v=Itzy5vRmN8Q>

Elon Musk’s Open A.I. Destroys Champion Gamer! Computer Science is the cornerstone of artificial intelligence and it’s being exhibited hugely in this video. A team of about 10 that are part of Elon Musk-funded Open AI coached a computer as it played itself millions of times to develop strategies to beat a world champion Dota2 player named Dendi.

<https://www.youtube.com/watch?v=XbDmxEOj9OY> I happened on another video of the same event though it’s about twice as long but has more details, it appears.

<https://www.youtube.com/watch?v=92tn67YDXg0>

Analysis of 2017 AP CS Exam Participation. This blog post from Mark Guzdial reminds me of Barb Ericson’s work each of the last few years in analyzing APCS Stats across the country and also that Mark Guzdial produces a very excellent blog that is worth subscribing to. The full report produced by Barb Ericson and the College of Computing at Georgia Tech is linked for you to download and read it.

<https://computinged.wordpress.com/2018/01/08/analysis-of-2017-ap-cs-exam-participation-from-barbara-ericson/>

Kids Who Code. This is a new program being implemented by an AmeriCorps VISTA volunteer working at Anacortes schools in Washington State. Hopefully the schools where this is occurring will get support from the district to expand these options for kids in the near future.

https://www.goanacortes.com/arts_and_community/article_363b2d1c-eb2a-11e7-bacd-dffc96ca

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

[Computational Thinking for a Computational World](#). This is a new report by Digital Promise. "This paper argues that computational thinking is both central to computer science and widely applicable throughout education and the workforce. It is a skillset for solving complex problems, a way to learn topics in any discipline, and a necessity for fully participating in a computational world. The paper concludes with recommendations for integrating computational thinking across (the) K-12 curriculum." (44 pgs released Dec 2017)
<<http://digitalpromise.org/wp-content/uploads/2017/12/dp-comp-thinking-v1r5.pdf>>

Monthly CSN Newsletter readings Oct 2012 - December 2017

<<http://iste-csn.wikispaces.com/Monthly+Newsletter+Readings>>

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



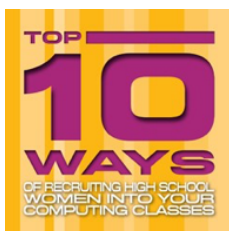
The National Center for Women & Information Technology (NCWIT) is a non-profit community of more than 1,100 universities, companies, nonprofits, and government organizations nationwide working to increase girls' and women's meaningful participation in computing. NCWIT equips change leaders with resources 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:

Get new posters below

Top 10 Ways of Recruiting High School Women into Your Computing Classes

www.ncwit.org/top10recruithighschool



Recruiting diverse students to computing requires that you spark their interest, build their confidence they can succeed, create a community where they feel like they belong, and help them see themselves as a "computing person." This Top 10 list offers practices that help you recruit high school girls to your computing courses.

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

LOOK → HOW TO GET THESE FREE POSTERS and other C4C materials

To get the C4C Counselors Kit: <https://www.ncwit.org/counselors-computing-c4c-kit-request-form>

To get the Posters + related material: <https://www.ncwit.org/resources/stephanieweber/c4c-plus-kit>

To get just the Posters: <https://www.ncwit.org/resources/customcatalog/c4c-posters>

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 Knoch. <joe@jknoch.com>

This month...

[Google-Gallup CS Education Research Site](#). Google and Gallup have developed a partnership resulting in a number of very interesting and useful research studies that you should be aware of. Check these out at <<https://www.google.com/edu/resources/computerscience/research/>>

[A Gentle Introduction to Programming Using Python](#). This is a course on the MIT Open Courseware site. Maybe this might be of some use for some kids with initiative to work through an online course. As indicated on the title screen, it was taught in January 2008 at the undergraduate level. If you or a student take this course, please write a review! <<https://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-189-a-gentle-introduction-to-programming-using-python-january-iap-2008/index.htm>>

[10 Useful .htaccess snippets to have in your toolbox](#). This could be very useful for you or students trying to implement some level of security on a website that you're programming (yes most websites require a significant amount of programming and database work way beyond simple HTML). <<http://www.stumbleupon.com/su/4GeBeN/:43ylEQ4.:2tp2Bcey/www.catswhocode.com/blog/10-useful-htaccess-snippets-to-have-in-your-toolbox>>

Contact Joe Knoch <joe@jknoch.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 Computing Teachers Network.

Appendix

reminder → **Journal for Computing Teachers (JCT)**



The Journal for Computing Teachers (JCT) Fall 2015 issue is now available in the resources section of the ISTE.org website <<http://www.iste.org/resources/searchresults?searchterms=jct>>. There you'll actually see all of the complete issues for the past few years. You can go directly to the Fall 2015 issue by surfing to <<https://www.iste.org/resources/product?ID=3772>>. Soon it will also be on our CTN Wikispace.

Our editor Lucianne Brown is currently looking for papers and articles for the **Winter**

2018 JCT. The editor and our peer reviewers professionally offer critical suggestions for the writers to edit and produce a high quality article. If you have any questions, contact Lucianne Brown, Editor of JCT at docbrown1944@gmail.com or lbrown3@govst.edu

JCT is the only refereed journal oriented around K-12 computing education and one of only three journals published by ISTE. The previous complete JCT issues are available online along with the new current issue. Head to this url:
<<https://www.iste.org/store/publications/downloads/jct>>