Newsletter
February, 2019 (V12 N6)

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 Kmoch < joe@jkmoch.com>. Social media information (Facebook, pbworks 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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NEW → The Computer Science Network (CSN) announces our Third annual CSN Excellence in Education Award.

The annual Computer Science Network Excellence in Education Award recognizes exceptional educators and leaders who are championing the cause of improved Computer Science and Information Technology education. We seek those whose exemplary work provides a model for teaching, learning and leading in this endeavor. Your application will include information from the time period of June, 2017 to March, 2019. Applications are due by February 28, 2019. Here is the link to the application:

https://goo.gl/forms/WDLK4TI7MqHKGE3J2

Computer Science Network Events

Planning has begun for ISTE 2019 in Philadelphia, June 23-26, 2019

Consider volunteering for the following activities

*Please **fill out this form** if you are interested in volunteering...

- **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.

- **Updated → CS/CT Playground -** We continue our goals to engage those attending and to increase interest in computer science (CS) and computational thinking (CT). Thus far we will have exhibits from Robolink CoDrone, Scottie Go, Funecole Curriculum and Calypso/Cozmo/AI4K12. Others we are talking to include Merge Cube/CoSpaces, K-8 robot programming in Philadelphia School District and NCWIT.

  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 educators to demonstrate exciting technologies being used in classrooms. We need help finding students and teachers in the Philadelphia area who are doing interesting things with computer science and computational thinking. We will again have a double sized area directly opposite of the registration area (so we'll likely have even more attendees than ever). Our Playground will occur on Sunday, June 23, 2018 from 1:30pm - 4:30pm

- **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. Last year we had over 150 activities identified and we will likely have many more in 2019.

- **See top of this newsletter → 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! ***

ISTE Computer Science Network News

New but Hurry! → Webinar: How to Develop Computational Thinkers presented by Jorge Valenzuela

On Tuesday, February 5, 2019, the ISTE Expert Webinar series is "How to Develop Computational Thinkers" will be presented by CSN award-winning educator Jorge Valenzuela who is also on our CSN Leadership Team. This is going to be a good one!

Register here to attend live or get the recording. All live attendees get an ISTE certificate of attendance.

Hope to see you there!

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Reminder → Standards for Educators: Computational Thinking Competencies

Download them at <https://www.iste.org/standards/computational-thinking>

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Reminder → Interested in an awesome Professional Development Opportunity?

Our ISTE Computer Science Network it working on creating meaningful Professional Development that will help to support and empower a CS4ALL mindset. We began our PD this year by creating a Flipgrid, however to date...we have 197 views, but only 11 members have introduced themselves to the community and 3 of you who are actively engaging in conversation.

You have spoken and we are listening! We are closing the Flipgrid and have created a QUICK (four questions) survey so that you can let us know what you need. There is an open-response question at the end and we would love to hear other ideas and needs from you. We exist to support and empower YOU!

Please complete the following survey: CLICK HERE - https://goo.gl/forms/kZTgslDlqDSoDWU92
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New → Computer Science Network Discussion Forum on ISTE Connect

Recent topics have included:

- Summer Study for HS Girls?
- Online Computer Science Methods Course
- Helping Teachers See Computer Science in Content Areas
- Impacts of Computing
- AI+: The Future of Artificial Intelligence from a non-US Perspective

To the CSN Discussion area: <https://connect.iste.org/communities/community-home/digestviewer?communitykey=6fed01aa-9e1f-4c27-87d1-95d0afcbbbeb&tab=digestviewer>

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CSN Webinars: 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.

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: January and February Twitter chats will be

- Feb 6 "Physical Computing with Micro:bits" guest moderator Dylan Ryder
- February 20 "The Integration of CS and Social Studies in K-8" and guest Kristeen Shabram
- March 6 and March 20

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/1118dsaaa03101139836526905> 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

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Reminder → Amazon launches 'Amazon Future Engineer' program to support cs education

Amazon is officially launching a new program it calls "Amazon Future Engineer," a broad, community-based push into schools and education that represents a renewed emphasis on education, an area in which it's had mixed success. See their site and the January 2019 issue of this newsletter

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Reminder → [AI for K-12 (that's Artificial Intelligence for K-12)](). This group jointly sponsored by AAAI and CSTA is developing national guidelines for AI education for K-12 and developing an online, curated resource directory to facilitate AI instruction. They will be presenting sessions at both the upcoming SIGCSE 2019 and ISTE 2019. They will also be presenting at our ISTE CSN Playground. If you are interested in following this group and their work, please join the AI for K-12 mailing list by sending an email to ai4k12@aaai.org and requesting inclusion in their mailing list.

AI4K12.org

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Reminder → New Special Reports: Computer Science Education Week 2018 (and beyond)

For Computer Science Education Week this year, the CS Bits and Bytes authors shared features about NSF-funded resources that enable computing education for *all* students.

- Their **first feature** highlighted the pioneering work of the Ithaca City School District of New York to create opportunity, agency, and joy through equitable CS education, impacting students during CS Education Week, and beyond.
- The **second feature** was all about the buzz from Cafe CS in Chicago.
- In the **third feature**, you can learn more about making CS education accessible for all students.
- The **fourth feature** provided a vision into the 10-gallon-hat-sized CS education effort in Texas.
- The **final feature** provided an inside look at preparing a network of CS teachers across the country and included a link to Cleveland's John Marshall HS of Information Technology.

Reminder → NSF CS Bits and Bytes - Highlighting innovative Computer Science Research.

Your feedback is welcome at CSBitsandBytes@nsf.gov To subscribe and receive information and a link to each new issue, please send a blank email to <csbytes-subscribe-request@listserv.nsf.gov>

Previous issues:
Vol 5 #1: **Brain-controlled Drones**
Vol 5 #2: **The Big Data of Lyme Disease**
Vol 5 #3: **Augmented Reality**
Vol 5 #4: **3D visualizations**
Vol 5 #5: **DNA Memory Chips**

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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:

- Teaching Networks & the Internet in MS - Protocols (CSTA K-12 Identifier 2-NI-04) published on 01/24/2019)
- Register now to be a presenter in the 2019 STEM for All Video Showcase! published on 01/16/2019
- Computer science professional development guide published on 01/15/2019
- Money tight? Refurbished Computers to the Rescue published on 01/08/2019
- Community Spotlight: Josh Paley published on 01/04/2019

DISCUSSIONS:

- Spring or Summer PD/Conferences- Which Do You Recommend? published on 01/18/2019)
- Portfolio Plan Drafts published on 01/17/2019)
- Maker Education in the News: How 'Makers' Make the Classroom More Inclusive published on 01/09/2019)
- What Resources Have You Used to Transition to Scratch 3.0? published on 01/09/2019)

UPCOMING EVENTS:

- **What is the role of robotics in Computer Science classrooms in 2019**? on 02/19/2019)
  Description: We are excited to explore the current state of robotics education in the K-12 classroom. What is available for robotics hardware? Programming language support? Professional development for teachers? Curricula and grade-level appropriate materials? Join us on Tuesday, February 19 at 7:30 pm ET, for this webinar. Our main host Neil Plotnick will chat with the following guests to learn more where we are with robotics in the CS classroom: Elizabeth Kiken of Dexter Industries [They feature robots based on the Raspberry Pi and micro:bit controller] Bambi Brewer of Birdbrain Technologies [Their robots include the Finch and Hummingbird kit]. Access the meeting room here: http://air.adobeconnect.com/neil/ Please note there is a technical issue with our website. This webinar is scheduled for 7:30 PM ET.
- **Using E-Textiles in the classroom** on 02/20/2019)
  Description: Last year, the Exploring Computer Science team put together an e-textiles unit as an alternative to Unit 6 robotics, in which students complete projects using clothing, accessories, or home furnishings to embed electronics and computational elements. The unit is design focused, hands-on, and integrativeâa perfect combination for engaging your students! Join us on Wednesday, February 20 at 7:30pm ET to hear from a teacher who has taught this unit and learn more about successes, challenges, teaching tips, and project ideas for e-textiles. Access the meeting room here: http://air.adobeconnect.com/nicole/ Please note there is a technical issue with our website. This webinar is scheduled for 7:30 PM ET.
- **ScratchEd meetups** Description: ScratchEd Meetups are peer-designed professional learning experiences inspired by the unconference model. This means that at any given event, you decide what your learning looks like! At a Meetup, you can share, create, and learn with other educators who are also passionate about teaching with Scratch in the classroom. Anyone who is interested in connecting with fellow educators and learning more about using Scratch in educational settings is welcome to participate. Learn more about the ScratchEd Meetups Network and find one near you! https://www.meetup.com/pro/scratched

RESOURCES:

- Cyber Security course published on 01/25/2019)
- Python Programming published on 01/18/2019)
- Portfolio reflection prompts for Unit 4 Programming published on 01/15/2019)
- Teaching Privacy Curriculum published on 01/16/2019)
- Raspberry Pi Academy published on 01/16/2019)
- Code.org's AP CSP Explore Task Survival Guide published on 01/12/2019)
- Burst 2 Portfolio Resources - Online Event Slides and Example Plan published on 01/09/2019)
- Computer Science Fundamentals Curriculum Guide published on 01/08/2019)
- Identifying abstractions for the CSP Create Task published on 01/08/2019)
- AP CSA Curriculum Links via GitHub published on 01/07/2019)

Student Opportunities

New, but hurry! → **Computer Science Summer Institute (CSSI)**

Dive into Computer Science with CSSI at Google, CSSI-HBCU, and CSSI-Extension.

Register during February for a Summer Google workshop for graduating seniors

Google's Computer Science Summer Institute (CSSI) is a three-week introduction to computer science (CS) for graduating high school seniors with a passion for technology — especially students from historically underrepresented groups in the field.

CSSI is not your average summer camp. It's an intensive, interactive, hands-on, and fun program that seeks to inspire the tech leaders and innovators of tomorrow by supporting the study of computer science, software engineering, and other closely-related subjects.
<https://buildyourfuture.withgoogle.com/programs/computer-science-summer-institute/#!?detail-content-tabby_activeEl=overview>
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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.

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 3 is Friday, March 8, 2019**. Round 4 is due April 19, 2019. 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>
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New → **Robo Expo 2019.** The **Robo Expo** is an 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, clubs, and any children sponsored by an adult. Robo Expo exhibits are open to all robotics kits—NXT, EV3, VEX, Arduino, Wedo, Hummingbirds, and anything else. To learn more, read Robo Expo – A Soft Approach to Robotics Teaching and Learning This will be held at The Hewitt School, 48 E 75th Stgreet, NY 10021 on Sunday, April 14, 2019 from 1:00pm - 3:15pm. Find out more...

Professional Development/Conference Opportunities

Upcoming→ C4C Workshop in Wisconsin. At the Wisconsin School Counselors Association (WSCA) the C4C Team at NCWIT is running a 4-hour workshop on Thursday, February 7, 2018. The workshop will be held in conjunction with the WSCA annual conference in Madison, WI at the Monona Terrace Convention Center. Flyer here.

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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 is open now. <http://tceaconvention.org>

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updated → SIGCSE 2019. To be held in Minneapolis, MN, February 27-March 2, 2019, the theme for SIGCSE 2019 is Celebrating our 50th Anniversary. **Registration is now open.** 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>

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New → WeTeach_CS Summit 2019. 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 year's Summit will be held on the shores of the San Gabriel River at the Sheraton Austin Georgetown Hotel and Conference Center in Georgetown, TX, just outside of Austin. Approximately 300 CS champions will be in attendance. Registration opens February 1, 2019. Full details at: https://stemcenter.utexas.edu/events/18

updated → 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. Registration and more information is available at https://www.csteachers.org/page/2019conference

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CS PD Week. Due to overwhelming demand, CSPDWeek will return to Colorado School of Mines, the week of July 22, 2019. CSPdWeek is a week-long residential professional development experience for computer science educators to support teachers and schools in offering inclusive and rigorous computer science learning opportunities. In addition to the National CSPdWeek in Colorado, many regions, states and communities are offering their own satellite CSPdWeeks as well. Full scholarships are offered to teachers and counselors who participate. <http://www.cspdweek.org>

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Logo Summer Institute - The 2019 Logo Summer Institute will be at the Spence School in New York City, July 22-25, 2019. The Logo Summer Institute is an intensive immersion in creative computing for K12 teachers, parents, and technology integrators. Our project-based approach supports computational thinking, and STEAM learning and teaching. The program is highly individualized to accommodate novices as well as more experienced participants, teachers of different subjects, and those who work in after-school programs and other informal settings as well as in classrooms. Registration is open now. <http://www.logofoundation.org/summer>

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Scratch Day @ TC

December 7, 2019

9:00 AM – 1:00 PM

Teachers College, Columbia University, New York City

Hold the date and check back for further information.

We're looking forward to a fun-filled day of learning and creating for children, their parents, and teachers. Scratch Day is for people of all ages, experienced Scratchers as well as novices.

- Parents: bring your children
- Teachers: bring your students
- Children: bring your parents and teachers

There will be hands-on workshops, on a wide variety of Scratch topics and a chance to win raffle prizes.

To find out more and to see what went on at previous Scratch Days visit:

ww.logofoundation.org/scratchday

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Update → **University of Texas at Austin CS Education Courses.** UT Austin has developed several courses that may be of interest to you. All of their courses can be currently found at https://stemcenter.utexas.edu/online-education. Two highlighted here include:

Foundations of Computer Science for Teachers.
Strategies for Effective Inclusive CS Teaching.

UT Austin is working on a new course specifically aligned to the new Praxis test that they hope to release in March, 2019. This would be 100% aligned to the new Praxis

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NEW → *Your Reading/Viewing Assignments*

How To Prepare Your Kids For a Post-Digital Age or Don't Teach your Kid to Code, Teach Them to Communicate. In 10 or 20 years, much of what we "know" about the world will no longer be true. The computers of the future will not be digital. Software code itself is disappearing, or at least becoming far less relevant. Many of what are considered good jobs today will be either automated or devalued. We need to rethink how we prepare our kids for the world to come.

Computational Thinking and Thinking About Computing. Computational thinking will influence everyone in every field of endeavour. This vision poses a new educational challenge for our society, especially for our children. In thinking about computing, we need to be attuned to the three drivers of our field: science, technology and society. Accelerating technological advances and monumental societal demands force us to revisit the most basic scientific questions of computing. Jeannette Wing, 2008. Worth revisiting for its depth and beauty <http://rsta.royalsocietypublishing.org/content/366/1881/3717.short>

Facial and emotional recognition; how one man is advancing artificial intelligence. In this CBS 60-Minutes production, Scott Pelley reports on the developments in artificial intelligence brought about by venture capitalist Kai-Fu Lee's investments and China's effort to dominate the AI field.
<https://www.cbsnews.com/news/60-minutes-ai-facial-and-emotional-recognition-how-one-man-is-advancing-artificial-intelligence/>

… From the January, 2019 issue of this newsletter

What is Inquiry Based Science? The Smithsonian Science Education Center sponsors the STEMVisions Blog. In this article the author interviews Dr. Robyn M. Gillies a professor in the School of Education at the University of Brisbane in Queensland, Brisbane, Australia. She has done much research on inquiry learning. Though this Q&A is focused on science, we in computer science can learn a lot from the way a good science class is taught and these ideas are explored here. <https://ssec.si.edu/stemvisions-blog/what-inquiry-based-science>

What Does Computer Science Professional Development Look Like? Author Sheena Vaidyanathan writes "To go beyond the Hour of Code, we need to train teachers to teach computer science. But what should this computer science professional development look like?" Sheena (@sheena1010) is an EdSurge columnist and teaches computer science to middle-school students in Los Altos School District in California. She is also the co-moderator of the CSK-8 Twitter Chat noted above.
<https://www.edsurge.com/news/2018-11-26-what-does-computer-science-professional-development-look-like>

8 reasons why every child should learn to code. If we want to set our children up for academic success, every child should learn to code. Coding for kids not only helps improve their mathematics and writing skills but also gives them valuable skills in life and eventually in the workforce. <https://teachyourkidscode.com/why-coding-is-important-to-learn/>

… From the December, 2018 issue of this newsletter

Six Reasons for Coding in K-5 classrooms. Team ISTE writes a strong blog post indicating why we really must introduce coding in K-5 to expose these young minds to something **everyone** can do. Many more reasons are included in the post.
https://www.iste.org/explore/articleDetail?articleid=866&category=Computer-Science&article=6+reasons+for+coding+in+K-5+classrooms

Programming & Storytelling: Opportunities for Learning About Coding & Composition.
The focus of this paper is to investigate how writing computer programs can help children develop their storytelling and creative writing abilities. The process of writing a program—coding—has long been considered only in terms of computer science, but such coding is also reflective of the imaginative and narrative elements of fiction writing workshops. Very interesting ideas - reminds me when we had an English teacher who taught expository writing and who used techniques from his expository writing class to teach programming.
<https://www.seas.upenn.edu/~eas285/Readings/IDC_StorytellingAndProgramming.pdf>

Gender Stereotypes Are Messing with Your Kid. A new Common Sense Media study shows that learning gender roles from movies and TV shows has real consequences on kids' self-esteem, relationships -- and even their future careers.

… From the November, 2018 issue of this newsletter

From our 2018 CSN Educator of the Year Award Jorge Valenzuela
How-to blog(s) (Project-Based Learning, Computer Science & STEAM):

- **3 ways to prepare students for computer science jobs**
- **Robotics demystified in 4 steps**
- **Embed computational thinking into PBL**

Developing Computational Thinking Skills in Elementary Students. Author Sarah Van Loo writes “As a science, technology, engineering, arts, and math (STEAM) educator, one of the subjects I teach is coding. My elementary school students enjoy coding; however, some students have a difficult time with large, complex coding projects because they struggle with breaking problems into smaller problems and also with debugging their code when it does not work properly.

In an attempt to help my struggling learners, I conducted a literature review of 18 peer-reviewed research articles. Through that research, I discovered interventions for struggling students and a recommendation for implementing a comprehensive K-6 computer science curriculum.
To learn more, please read my research report, Developing Computational Thinking Skills in Elementary Students, or watch my five-minute overview video.

On Learning to Code (for 2019). This article by Daniel Borowski may be oriented toward a college-level computer science students, you’ll get a taste of what’s to come for your students in the near future. He focuses on three ideas that have at least some relevance in the classroom and our planning.

<https://medium.com/coderbyte/on-learning-to-code-for-2019-aa086284a218>

Monthly CSN Newsletter readings October 2012 - October 2018
<*http://istecsn.pbworks.com/w/page/125926169/Monthly-Newsletter-Readings*>

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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:

Enrich PK-8 Computing Education

www.ncwit.org/enriched

Student influencers such as formal and informal educators and parents are eager to direct students to viable education opportunities in computing. Consider these key points and resources that can be used to integrate computing skills into existing curricula, encourage diverse participation in computing, and/or connect students to informal learning environments that emphasize hands-on experience with technology.

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

Littleproblemsolvers. A fun blog with lots of great ideas for little kids. "Just a mom preparing my kids for the future. Sharing activities that develop problem solving skills through coding, computational thinking and fun!" <https://www.instagram.com/littleproblemsolvers/>

Abstracting CS - FUNdamental Strategies for Computer Science..This is a blog by Jil Westerlund, the assistant chief reader for the APCS-A test. Her blog focuses on teaching

strategies for both of the APCS courses and is quite good.
<http://www.abstractingcs.com/author/jill/>

Some of Mark Guzdial's Favorite SIGCSE Papers. This is a post on Mark's Computing Education Research Blog which mentions SIGCSE's quest to identify top papers in computer science education. Mark's blog is definitely worth subscribing to and the papers he lists are I'm sure worth delving into.
<https://computinged.wordpress.com/2019/01/18/vote-for-sigcses-top-10-papers-of-the-first-50-years/>

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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>