

ARCS NEWS

Advancing Rural Computer Science

Brought to you by The Center for Educational Partnerships at Old Dominion University

VOL. 3, ISSUE 5

FEBRUARY 2023

Announcements

Greetings! CodeVA has opened their spring calendar! All ARCS participants are encouraged to complete two Learning Bytes sessions.



Click [here](#) to register.

February 15 at 6PM —Cybersecurity, Ciphers and Puzzles

March 1 at 6PM— Backwards Design for Computer Science Integration

March 15 at 6PM— Artificial Intelligence Basics

March 29 at 6PM— Data Science Every Day



This month's newsletter theme is Digital Citizenship. Now, more than ever, so much of our lives and our social interactions take place in a digital space. We provide several angles and resources on this complex topic below, which includes consideration of how online computing can spread both good and harmful information.

We wish you a Happy Valentine's Day and hope that it is filled with treats and time spent with loved ones. As always, don't hesitate to reach out if you have comments or questions.

The ARCS team

Concept Corner



Modern computers and the internet provide us with powerful tools for fast calculation and communication. These can be utilized to solve difficult and challenging problems. One such solution is the identification of the complete human genome and the development of technologies that allow us to quickly identify humans from their DNA. The latter is now routinely used in law enforcement and the justice system and has led to the exoneration of many people falsely convicted of crimes they did not commit. It has also led to techniques that can trace ancestry which has resulted in surprising discoveries and verified (or nullified) claims. Fast and secure communication through freely available platforms can also allow people to network, organize and protest for just causes.

However, the vast computing and communicating power, intentionally or intentionally, can also lead to vast negative impact on society. An example is the spread of misinformation through use of internet based social media. Misinformation can lead people to become absorbed in harmful activities or become susceptible to polarizing messages. As a society, we have also seen the rise of cyberbullying among young people which can cause them to harm themselves or others. Digital citizenship encourages us to be mindful of identifying trustworthy sources of information and avoid being susceptible to misinformation from unverified or unreliable internet sources. Responsible digital citizenry can include giving careful consideration before re-tweeting, sharing or forwarding posts and other forms of digital communication.

Pedagogy Pointers



For all levels: Common Sense Education provides a series of lessons, videos, and activities for elementary-aged students at all levels that help students work on ethical behavior while online, including the dangers of cyberbullying and sensible social media use. The collection of resources even includes songs for especially young students. Aligns with CS standards K.10, 1.12, 2.13-14, 3.14-16, 4.15-17, 5.14-16.

[Digital Citizenship lessons, worksheets and planning guide](#)

[Digital Citizenship videos and songs](#)



For Valentine's Day: Customize a Google Logo with this lesson planned and provided by Google's education division. In this lesson, students can create and animate their own version of the Google logo in Scratch to share with someone they care about (be it a friend, a teacher, a family member or a pet!) on Valentine's Day. A child-friendly introduction video is provided with the lesson. Aligns with CS 1.2, 2.2, 3.2, 4.2, 5.2.

[Valentine's Day Logo](#)

Computer Science in the Commonwealth



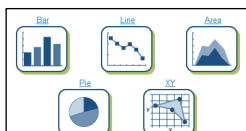
This month, we wanted to feature one of our key partners in National Computer Science Education Professional Organizations, the Computer Science Teachers Association (CSTA). This organization is teacher-driven and designed to provide innovative practices, professional development, and connects you to a community of K-12 computer science educators both nationally and in your local area. Several multi-state chapters of CSTA, have collaborated to offer the upcoming, *Super Southern CSEd Virtual Unconference* to be held March 25, 2023 from 9:00 a.m.—2:00 pm EST. Visit the CSTA Tidewater Virginia website to learn more:

[Home Page | Tidewater Virginia \(csteachers.org\)](#)

Also, please consider registering to receive our VDOE Computer Science Update, a newsletter from the VDOE computer science office sharing this important work across the Commonwealth:

[VDOE Computer Science Newsletter \(google.com\)](#)

Engaging All Learners



One strategy for supporting the development of digital citizenship combines technology with cultural responsiveness to involve and engage all learners. Integrative computer science activities across the curriculum that incorporate student voice and introduce new concepts using familiar vocabulary are among the techniques that can promote computer science teaching and learning. [Check out](#) this brief (4 minute) video from the 2019 International Society for Technology in Education (ISTE) annual conference for ideas and examples on creating a culturally responsive learning space.

United States Education Department Grant U411C190032. The contents of this newsletter were developed under a grant from the Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

Old Dominion University

The Center for Educational Partnerships

Have a question or feedback for us? Email TCEP@odu.edu

Website: <https://www.odu.edu/tcep/arcs>

Tel: 757-683-5449