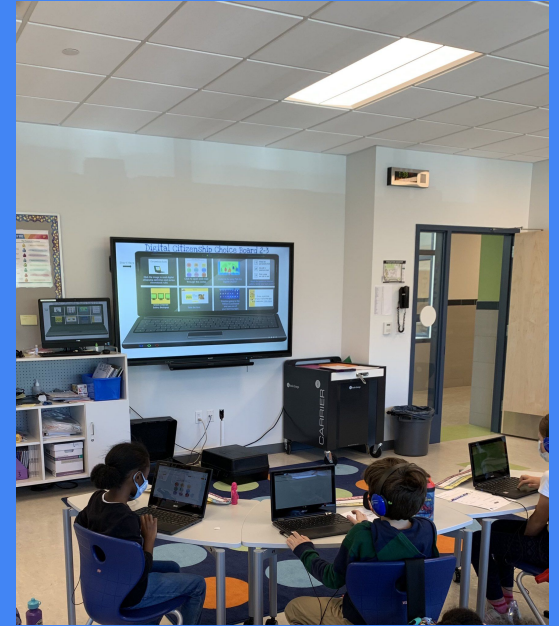


# Pelham Technology

Board of Education Work Session  
October 18, 2022



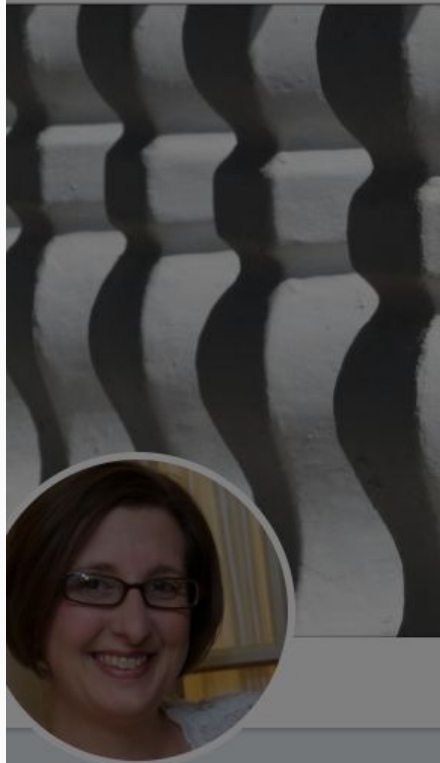
# Overview for tonight

*Creativity* is where we start to think differently, and *innovation* is where creativity comes to life

- George Couros

1. Overview of technology in Pelham
2. Strategic plan and inquiry process
3. NYS CSDF Standards
4. What we're doing now
5. Why teach digital citizenship?





**Carol (Nichols || Goulding)**

Carols10cents

under @Integer32LLC. #rustlang Core  
am. Co-author of The Rust Programming



**Carol (Nichols || Goulding)**

@Carols10cents

Follow



1998:

- Don't get in strangers' cars
- Don't meet ppl from internet

2016:

- Literally summon strangers from internet to get in their car

10:17 PM - 1 Jul 2016

93,107 Retweets 147,867 Likes



365

93K

148K



**Carol (Nichols || Goulding)** @Carols10cents · 3 Jul 2016



Replying to @Carols10cents

I hereby license this tweet CC0 [creativecommons.org/share-your-wor...](https://creativecommons.org/share-your-work/)

Seriously please steal it.

Want to do something for me? Donate to @HumanItility!

# Pelham Technology Profile 2022 - 2023

|                             |                         |                           |
|-----------------------------|-------------------------|---------------------------|
| <b>Laptops</b>              | <b>Desktops</b>         | <b>Security Cameras</b>   |
| 365                         | 250* (25 Macs)          | 51                        |
| <b>Chromebooks</b>          | <b>iPads</b>            | <b>Doc Cameras</b>        |
| 4635*                       | 190                     | 250                       |
| <b>Physical Servers</b>     | <b>Virtual Servers</b>  | <b>Docking Stations</b>   |
| 3*                          | 14                      | 125                       |
| <b>Access Points</b>        | <b>Phone Extensions</b> | <b>MiFI Access</b>        |
| 290*                        | 503                     | 30                        |
| <b>Interactive Displays</b> | <b>Printers</b>         | <b>Visitor Access</b>     |
| 225                         | 125                     | 8                         |
| <b>Scanners and Copiers</b> | <b>Users</b>            | <b>Physical Locations</b> |
| 17                          | 3219                    | 9**                       |



# What technology do we have in Pelham?

- Interactive displays and Ipevo document cameras
- All staff with a dedicated mobile device
- True 1:1 program in grades 6-12
- Dedicated classroom carts in K-5
- 5 iPads for each K-1 classroom
- Expansive suite of instructional technology programs



2018-2021

Pelham Union Free School District Technology Plan



John C. Sebalos  
Director of Technology

## Pelham Technology Goals 2022 - 2025

- ***Curriculum and Instruction:*** The district will assess and improve the use of instructional technology and space to meet the needs of all learners. Faculty will integrate real world technology skills to create authentic, hands-on learning experiences that align to our curriculum.
- ***Digital Citizenship and Fluency:*** The district will model appropriate and safe uses of technology to enhance teaching and learning experiences. Students will understand the benefit of digital technologies to be successful in a changing global economy.
- ***Data Privacy and Security:*** The district will maintain a secure network that provides protection to students and staff of personally identifiable information.

# Curriculum and Instruction

| <b>Action Step</b>       | <b>Description</b>   | <b>Anticipated Date of Completion</b> |
|--------------------------|--|---------------------------------------|
| Evaluation               | Assess the use of applications and software among all users within the district  | December 2022                         |
| Curriculum               | Review existing K-12 curriculum and identify areas for authentic learning experiences using space and other technology tools as needed                           | December 2023                         |
| Learning Spaces          | Evaluate our current innovative learning spaces and create opportunities to grow and expand throughout the district  | June 2025                             |
| Professional Development | Provide continual professional development for all teachers, staff, and administrators that reflect ongoing needs and changes within the district and technology | December 2023                         |



# Digital Citizenship and Fluency

| <b>Action Step</b>       | <b>Description</b>   | <b>Anticipated Date of Completion</b> |
|--------------------------|--|---------------------------------------|
| Evaluation               | Determine the skills and knowledge of teachers and students about the ethical and legal responsibility of using digital resources  | June 2023                             |
| Curriculum               | Teachers will analyze curriculum to decipher where the NYS Computer Science and Digital Fluency standards are currently implemented. This data will determine the next steps in implementing these skills. | December 2023                         |
| Community Partnership    | Develop district and community awareness around digital citizenship by hosting a digital citizenship week  | December 2024                         |
| Professional Development | Faculty will engage in professional development opportunities to master technology tools used to implement NYS CSDF standards  | December 2023                         |



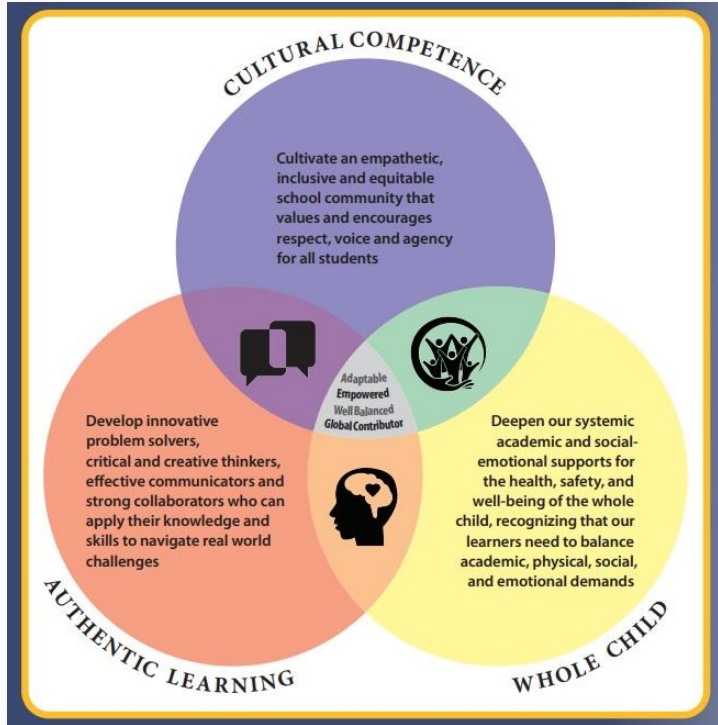


# Data Privacy and Security

| <b>Action Step</b>       | <b>Description</b>   | <b>Anticipated Date of Completion</b> |
|--------------------------|--|---------------------------------------|
| Budgeting                | Conduct biannual penetration testing of our network to ensure the safety of all users  | June 2023                             |
| Professional Development | Provide continual professional development and training dedicated specifically to data privacy outside of yearly mandatory compliance training | June 2023                             |
| Data Privacy             | Conduct annual email phishing and simulations for all users  | December 2023                         |
| Professional Development | With members of the administrative cabinet, conduct yearly table top exercises on our incident response plan                                   | December 2023                         |



# Pelham Strategic Plan and Inquiry Cycle



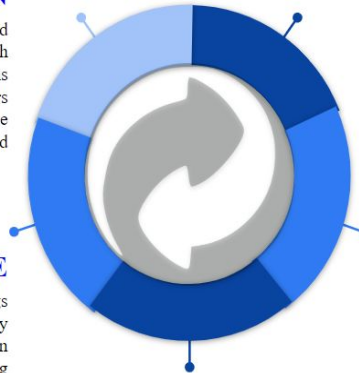
## PELHAM INQUIRY CYCLE

### QUESTION

- Identify a topic, problem or need
- Conduct research
- Analyze existing information and/or solutions
- Interview and empathize with others
- Summarize the gap in knowledge
- State what remains unanswered

### COMMUNICATE

- Present your findings
- Subject your conclusions to scrutiny
- Explain the impact of the solution
- Articulate the process verbally and/or in writing
- Indicate future work



### DESIGN

- Brainstorm possible solutions
- Outline a method or procedure
- Get feedback from others
- Create drawings, diagrams, or a model
- Finalize a logical plan

### APPLY

- Test the plan/solution
- Make observations
- Collect information
- Process raw data
- Organize results

### REFLECT

- Draw conclusions Related to the question
- Evaluate design Strengths/weaknesses
- Propose improvements
- Re-test

Developed from the NGSS, NY Social Studies, and Stanford Design Thinking Standards (2019)



# Vision for the CSDF Standards in NY

Every student will know how to live productively and safely in a technology dominated world. This includes understanding the essential features of digital technologies, why and how they work, and how to communicate and create using those technologies.

- Represent essential **knowledge** and **skills** in computer science and digital fluency
- Success in **college, careers, and citizenship**
- Requirement of medium-to-high level technology skills in ***all occupations***



# Overview of New York State Computer Science and Digital Fluency Standards



# An Overview of the NYS CSDF Standards

Impacts of Computing



Computational Thinking



Networks & System Design



Cybersecurity



Digital Literacy



Every student will know how to live productively and safely in a technology dominated world. This includes understanding the essential features of digital technologies, why and how they work, and how to communicate and create using those technologies.



# Timeline for Rollout and Implementation

The timeline for implementation of the new Computer Science and Digital Fluency Standards allows for time for teachers to become familiar with the new standards.

| Dates                  | Phase                 | Activities   |
|------------------------|-----------------------|--|
| Dec. 2020 – Aug. 2021  | Awareness-Building    | Roll-out and building awareness of the new standards and timeline for implementation |
| Sept. 2021 – Aug. 2023 | Capacity-Building     | Focus on curriculum development, resource acquisition, professional development      |
| Sept. 2023 – Aug. 2024 | Year 1 Implementation | All credit-bearing Computer Science courses will be aligned with NYS CS&DF Standards |
| September 2024         | Full Implementation   | CS&DF Standards implemented in all grade bands K-12                                  |



# Digital Literacy vs Digital Citizenship

**Digital literacy** is a multifaceted concept that extends beyond skills-based activities and incorporates both cognitive and technical skills. It refers to the ability to leverage computer technology to appropriately access digital information; to create, share, and modify artifacts, and to interact and collaborate with others. Digital literacy includes understanding the benefits and implications of using digital technologies to be successful in our contemporary world.



**Digital use** - Digital technologies are a part of everyday life. A variety of digital tools exist to create, revise, and publish digital artifacts, as well as communicate and collaborate with others.



**Digital citizenship** focuses on empowering learners to use online resources, applications, and spaces to improve communities, make their voice heard, and curate a positive and effective digital footprint. It encourages students to engage respectfully online with people with different beliefs and better determining the validity of online sources of information.

\* NYS CSDF Standards





## NYS K-12 Computer Science and Digital Fluency Standards

### Digital Literacy

|                     | Grades K-1                              | Grades 2-3  | Grades 4-6  | Grades 7-8   | Grades 9-12   |
|---------------------|---|---|---|--|---|
| Digital Use         | This Standard begins in Grade Band 4-6. | This Standard begins in Grade Band 4-6.   | <p><b>4-6.DL.5</b></p> <p>Identify common features of digital technologies.</p> <p><i>Many digital technologies have similar features and functionalities. The focus is on identifying the similarities between different programs or applications, such as word processing tools on different platforms.</i></p>   | <p><b>7-8.DL.5</b></p> <p>Transfer knowledge of technology in order to explore new technologies.</p> <p><i>New technologies could include different tools for collaboration, creation, etc. that the student has not used before.</i></p>  | <p><b>9-12.DL.5</b></p> <p>Transfer knowledge of technology in order to use new and emerging technologies on multiple platforms.</p> <p><i>New technologies could include different tools for collaboration, creation, etc. that the student has not used before. Platforms could include devices running different operating systems or could be emerging STEAM technologies. Digitally fluent individuals can move between platforms and can use that knowledge when encountering new technology.</i></p> |
| Digital Citizenship | This Standard begins in Grade Band 2-3. | <p><b>2-3.DL.6</b></p> <p>Describe ways that information may be shared online.</p> <p><i>The focus is on how personal information, both public and private, becomes available online and understand ways their information can be shared.</i></p> | <p><b>4-6.DL.6</b></p> <p>Describe persistence of digital information and explain how actions in online spaces can have consequences.</p> <p><i>In order for students to be able to effectively manage their digital identities, it should be understood that online information doesn't "go away," and that information posted online can affect their real lives, even years in the future.</i></p> | <p><b>7-8.DL.6</b></p> <p>Explain the connection between the persistence of data on the Internet, personal online identity, and personal privacy.</p> <p><i>A focus should be on learning about privacy settings on social media accounts, exploring the concept of a positive online presence/identity, and identifying behaviors and information that could potentially affect them now and in the future.</i></p> | <p><b>9-12.DL.6</b></p> <p>Actively manage digital presence and footprint to reflect an understanding of the permanence and potential consequences of actions in online spaces.</p> <p><i>Active management implies an understanding of how intentional and unintentional actions can affect a digital presence.</i></p>  |





# Digital Citizenship- What are we doing now?









## Elementary

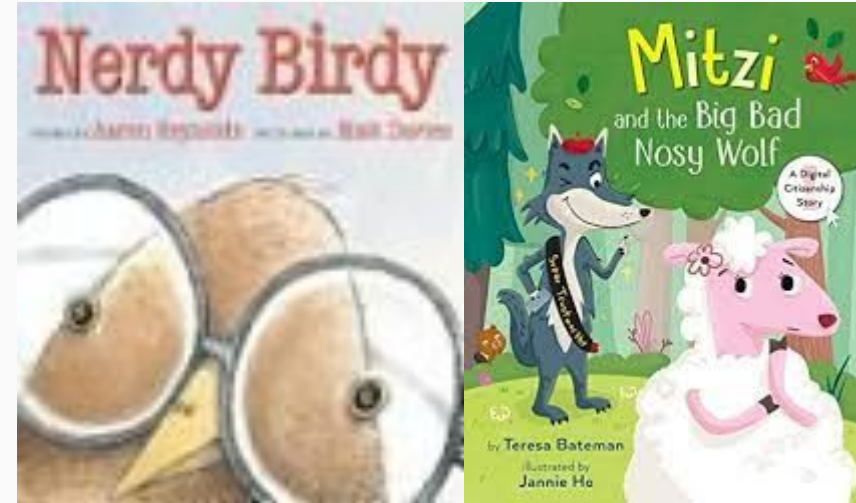
K-5:

- Internet Safety with Alicia DelMastro
- Digital Citizenship with Anne Sullivan

**Digital Citizenship Choice Board 4-5**

Start Here →

|   |   |  |   |
|---|---|--|---|
| <br>Click the image to read digital citizenship definition and review chromebook rules | Watch the Brainpop video called <b>Internet Safety</b> . Go to your launchpad and open Brainpop (not brainpop Jr.). Then, type in <b>Internet Safety</b> .<br> | <br>Take the Quiz or complete this <b>worksheet</b>   | <br>Click the image to go through this Pebblego Activity |
| <br>Digital Footprint EdPuzzle   | <br>Practice being a Digital Citizen while Coding! Click start under Dance party. Click "show notes" to see instructions.                                      | <br>Use this Google Doc to write about how you can practice being a digital citizen at home and in school | <br>Click the image to read Staying Safe Online          |



## Secondary

- Media Balance
- Phishing
- Who are you Online?
- Chatting Safely Online
- The Powers of Words and Actions
- Being Aware of What You Share)
- Your Online Self (Social Media and Digital Footprint)
- Digital Media and Your Brain (habits/addictions in devices and social media)
- The Big Data Dilemma (how online tracking works and how to keep your data private)
- Hoaxes and Fakes (avoiding being taken in by scams which target your privacy, wealth, and point-of-view)
- Protecting Online Reputations (actions to take now to insure your digital footprint is the one you want the world to see)



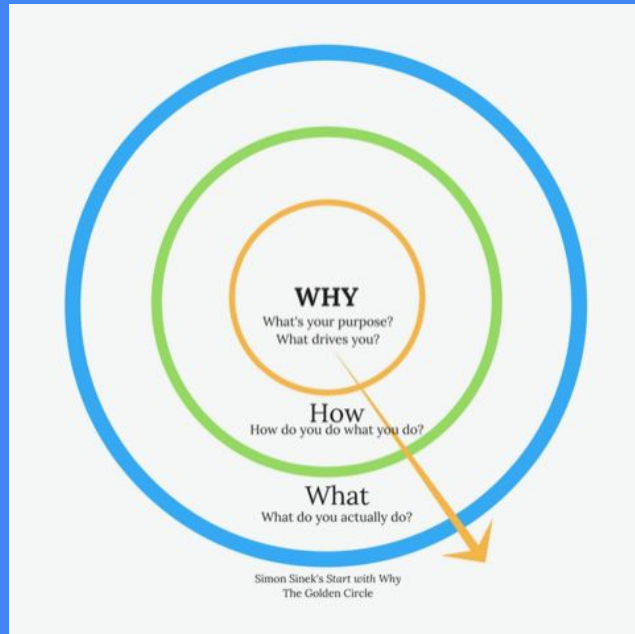


# What are we doing now?

| <b>K-5</b><br><i>*Digital Citizenship will also be covered during Library.*</i> | <b>6-8</b><br><i>*Digital Citizenship will also be covered during Library/Technology Classes.*</i> | <b>9-12</b>   |
|---|--|---|
| Choice Board<br><a href="#">K-1</a>   | Go to Brainpop on your launchpad and search:<br><a href="#">Digital Etiquette</a>                  | Writing Activity<br><a href="#">My Ideal Digital Life</a>     |
| Choice Board<br><a href="#">2-3</a>   | Go to Brainpop on your launchpad and search:<br><a href="#">Online Safety</a>                      | Digital Footprint <a href="#">Edpuzzle</a>                    |
| Choice Board<br><a href="#">4-5</a>   | Digital Footprint <a href="#">Edpuzzle</a>   | Video<br><a href="#">Secure Passwords</a>                     |
| Read Aloud K-5<br><a href="#">Pause and Think Online</a>                        | Cyberbullying <a href="#">Edpuzzle</a>   | <a href="#">Social Media Test Drive</a>                       |
| <a href="#">Safe Online Surfing</a> (3-5)                                       | <a href="#">Safe Online Surfing</a>  | Disinformation and Misinformation<br><a href="#">Edpuzzle</a> |



# Why teach digital citizenship?



# Panel of Experts

| <b>Name</b>           | <b>Role</b>                                   |
|-----------------------|---|
| Alicia DelMastro      | K-12 Instructional Technology Specialist      |
| Dr. Trisha Fitzgerald | Hutchinson Elementary School Principal        |
| Karen Cirillo         | 4th Grade Prospect Hill Elementary            |
| Dr. Thomas Callahan   | Director of Math and Science                  |
| Dr. Maria Thompson    | Director of Humanities                        |
| Sarah Williamson      | Pelham Middle School Technology               |
| Brian Battersby       | Pelham Middle School Technology               |
| Lauren Rosenberg      | Pelham Middle School Library Media Specialist |
| Mark Berkowitz        | Pelham Memorial High School Principal         |

# CoSN Driving K-12 Innovation Trends in technology

## Top 3 Hurdles (barriers)

- Scaling Innovation & Inertia of Education Systems
- Attracting & Retaining Educators and IT Professionals
- Digital Equity

## Top 3 Accelerators (mega-trends)

- Personalization
- Building the Human Capacity of Leaders
- Social & Emotional Learning

## Top 3 Tech Enablers

- Digital Collaboration Environments
- Untethered Broadband & Connectivity
- Analytics & Adaptive Technologies

