

Board of Education
Communications Sub-Committee
January 11th, 2021
Virtual Meeting 1:00 p.m.

Minutes of meeting held virtually.

Present: D. Cruson
D. Zukowski
L. Rodrigue

1. Call to Order

Mr. Cruson called the meeting to order at 1:03 PM

2. Public Participation

None

3. New Business

- Approve Minutes of December 7th Meeting
*Motion made by Mr. Cruson, 2nd Ms. Zukowski
Approved Unanimously*
- Discuss Technology newsletter
Mr. Cruson reviewed the pieces that were missing for the completed newsletter He also reviewed the people that would be interviewed for the missing pieces.

Dr. Rodrigue asked what her responsibility for this newsletter was and that was discussed

Dr. Rodrigue asked about the timing. Mr. Cruson said that we would be looking at the Feb 2nd board meeting to get approval so we would need the articles ready by Jan 25th.

The Committee reviewed Ms. Zukowski's Closer Look and Technology Deployment articles with edits.
- Discuss Budget newsletter
The committee reviewed the list of articles to be written and the individuals to talk to.

Dr. Rodrigue gave approval to reach out to those individuals and set up the interviews.
- Discuss and approve the committee meeting calendar for the next 12 months
Ms. Zukowski moved that we add this item to the agenda, Mr. Cruson seconded.

Meeting will continue on the first Monday of each month.

Approved Unanimously.

4. Public Participation

None

5. Adjournment

Motion made by Mr. Cruson, 2nd Ms. Zukowski. Approved Unanimously. Adjourned at 2:08 PM

Respectfully submitted:

Daniel Cruson Jr.
Chair

Newtown Board of Education
Communications Sub-Committee
2021 Meeting Schedule

February 1st, 2021 @ 1 PM
March 1st, 2021 @ 1 PM
April 5th, 2021 @ 1 PM
May 3rd, 2021 @ 1 PM
June 7th, 2021 @ 1 PM
July 5th, 2021 @ 1 PM
August 2nd, 2021 @ 1 PM
September 6th, 2021 @ 1 PM
October 4th, 2021 @ 1 PM
November 1st, 2021 @ 1 PM
December 6th, 2021 @ 1 PM
January 3rd, 2022 @ 1 PM

Technology Deployment (Draft)

A lot has happened since we first reported on the district's "One Device per Student" plan in April 2020 (available at: <https://www.newtown.k12.ct.us/BoardofEducationNewsletters>). The rigors of distance learning have not only challenged our staff and students, but also the technology used to deliver the curriculum. While the overall plan remains the same, many of the details have changed. This article will revisit the discussion and broaden it to include the district's additional use of devices.

"One Device per Student" Update

The April 2020 article described a district plan with the goal of providing access to Chromebooks for every student in grades 2-8 and providing dedicated Chromebooks to ninth graders thereafter to use for the remainder of their time with the district. As of the 2023-2024 school year, the plan provided that every student from grade 2-12 would have one-to-one access to a device, either within the classroom or as assigned to the individual student.

The overall deployment plan back then was to provide less powerful devices to the earlier grades, assuming younger students would not need the more costly higher-level capabilities that the older students would need. Also, the plan called for graduates to keep their devices since the devices would have minimal usability left, given that Google supported operating system upgrades for only 5 years. In addition, kindergartners and first-graders were to have access to devices when supplemental instruction was beneficial, though iPads would be used because of their simpler interface. These iPads were expected to be in-school resources and not one-to-one per student.

Today, the plan is to eventually provide all K-12 students in the district with Chromebooks that are capable of supporting the software needed for distance learning. The cheaper devices previously used in the earlier grades were not able to handle the load required for distance learning, so had to be upgraded to more powerful devices. In addition, kindergarten and first-grade students also needed Chromebooks for more effective distance learning, and it turned out that they were able to use those devices better than expected.

The plan has also changed regarding when and how to provide students with dedicated devices. In April, the plan was to equip all ninth graders with dedicated devices in the fall of 2020 to use throughout their high school years. However, because of the need for upgraded devices for distance learning, devices were not provided to all ninth graders as stated in the April newsletter. Also, in response to concerns expressed by educational institutions about the high cost of changing devices every 5 years because of restrictions on operating system updates, Google extended its operating system support from 5 years to 8, but only for systems sold in 2020 and later. This extension meant that the devices could be recouped by the district to be used for the earlier grades as opposed to having the devices age out of the district along with the students.

The device deployment goal now is to standardize on a limited number of vendor devices that provides ease-of-use features like a 13-inch or greater display and touch-screen capability. Such uniformity helps overall management of the devices and also helps ensure the homogeneity of

devices within a classroom. The latter is important to ensure common instruction to the students within a class and allow the teacher to gain a better understanding of device use and performance. Currently Dell Chromebook is the platform of choice, though availability this year was limited due to the transition to distance learning in schools throughout the nation. As a result, some recently acquired devices were from Lenovo instead.

By the end of this school year, every K-8 student will have a device available to them. Also, because of distance learning, students in grades 9 -12 who were in need of a device have been provided one. Starting in the fall of 2021, devices will be given to all grade 9 students to use for the remainder of their time with the district. All students in the high school will have dedicated devices as of the 2024-2025 school year. Devices used in K-8 that are reaching the end of the Google support period will be replaced. For the next few years this means that devices will be replaced after 4 to 5 years. Eventually, K-8 devices will be replaced every 6-8 years. At all times, the district will also maintain a reserve of about 5% of deployed devices to ensure that devices can be provided for new students and broken devices can be replaced with limited impact to learning.

Other Uses and Needs

Prior to the pandemic, every K-12 teacher had access to one device. K-8 teachers each had a multi-media teaching station equipped with a desktop computer, camera, projector, document camera, and smartboard or projecting screen in their assigned classrooms. High school teachers, who often changed classrooms from period to period, were assigned laptops that could be carried with them.

Since school opened in September 2020, teachers have sometimes had to teach in the classroom and sometimes from their homes. And, in both cases, at least some of the students have had to join from remote locations. At this time, each teacher is effectively assigned two devices. Every K-12 classroom now has a multi-media teaching station to support remote instruction within the classroom. Teachers also have a personal Chromebook to be able to teach from home when necessary. Classroom-based para-educators have also been provided with Chromebooks during the pandemic so that they would be more familiar with the Chromebook system and educational software used during lessons and so could more effectively assist the teacher and students. For the time being these allocations of devices will continue, but they will be reviewed once the schools get back to full in-person learning.

In addition to traditional classroom instruction, the district provides a series of labs and courses that use specialized devices and/or software. Now that Chromebooks are an integral part of classroom education, computer labs in K-4 have been eliminated. Class-based labs for grades 5-8 have been refocused to emphasize added activities, including graphic design, video editing, web site development, etc., using Adobe Photoshop and Creative Cloud Suite. The students are also introduced to programming concepts and coding. The high school expands these activities by offering electives in areas like music composition, architectural design using CAD systems, software design, phone app development, and more extensive graphics and video production, for example. All of the specialized devices used in these courses are shared among participating students.

Devices are also needed for administration and operations. These devices support communications needs, business operations like payroll and accounting, and facilities functions like managing maintenance and shipping. Administrators and their support staff are provided with dedicated devices. Some staff, like security personnel and custodians, share devices.

Technology Department

The Newtown Public School's Technology Department objectives are to ensure that our district has the devices, communications infrastructure, and guidance needed for a vibrant and well-managed educational system. The department is charged with equipping teachers and students with the technology tools and infrastructure needed for an engaging and enriching educational experience. In addition, it is expected to provide a robust and secure business and communications infrastructure for our administrators to operate the district efficiently and reliably. And finally, it is a place where staff and students can go when their systems do not work as expected.

As of just a short time ago Carmella Amodeo, our Director of Technology, has decided it is time for her to step back to a part-time Software Specialist position. She leaves the department leadership having shepherded the district through the turmoil of the pandemic and honing a technology plan that supports education needed for the 21st century. Our thanks to her for all that she has done for our schools.

A Closer Look – Kelly Murphy (Draft)

Please give a brief history of your time with the Newtown Public School District.

My name is Kelly Murphy and am a Newtown Graduate! I came to teach in the Math department at the High School in 2013. I teach a range of classes to a range of abilities.

How has the access to computing technology changed what is taught in the classroom and how it is taught?

The access to computers in the classroom has changed quite a bit in the few short years since I've been teaching at Newtown High School, and therefore how we use the computers in the classroom has changed. The classes I teach rely heavily on seeing interactions that functions may have on a graph. A few years ago I was introduced to an online platform that I primarily used for students who did not have access to a graphing calculator, giving students who may not have a graphing calculator at home free access to essentially the same technology. This online platform helped many students practice what we were learning in class at home as well. In the last few years, that same platform has morphed to provide full interactive lessons that can be tailored by me as the teacher to best suit the needs of my classes. The platform has interactive games that use graphed images and a "*Guess Who*" style game to force students, in a very fun interactive manner, to practice their vocabulary skills. The same platform allows for more interactivity like simulating gravity on a graph and creating a makeshift marble slide, or playing a matching game electronically instead of cutting out paper and playing that way. The platform has remained free, and has invited teachers to help work together to create interactive activities that are accessible to classrooms all around the globe, working to translate activities into many languages and adding features to support the visually impaired.

In what ways do you find that computing technology helps the overall teaching and learning experience?

Other online platforms provide instantaneous, constructive, individualized feedback to each student, similar to the adaptive tests students take at the younger levels. We as a department have found a few platforms that allow us as teachers to choose a topic, set a threshold of competency and then allow each student to work at their own pace, with questions that adapt as they either master the material, or need more remedial instruction. From the student perspective they are just doing practice on the computer, which in a normal year is a nice break from working with pencil and paper. From the teacher perspective we get a very itemized readout detailing how each student is doing, which we can use in real time to approach a struggling student, or push a student who might be excelling to the next level, all without their peers knowing what is going on.

For the last few years we have used technology available to us via the Google Suite to make interactive online activities, designed to give feedback to anyone who got any question wrong. This was done, not as a math exercise, but as an exercise in teaching students how to succeed through 'failure'. Having the ability to code in to an assessment "*You might want to look more closely at your negative signs*", or "*go back*

and look at the notes we took on page #", is unique to online platforms, I can even link directly to a video, or a specific section of our electronic notes to help guide students. Using the same platform I can detect when a student is struggling based on their answer choice, and send them to a series of questions that might reroute them toward success, while other students move to the next level. Again, allowing students individualized instruction, while everyone is in the same room without bringing attention to anyone is a beautiful thing!

How often do students directly use a computer and what types of activities do they use it for?

Historically, I tried to have at least 3 online interactive activities scheduled for each unit, which worked out to be one interactive activity each week. Remote learning has forced me to pick up that pace in units that lend themselves nicely to more visual approaches.

Is there anything you have done to improve distance learning that might also enhance in-person classroom learning?

Access to the computer both at home and in school, before remote learning allowed us as teachers to very quickly identify the needs of each student within each topic reliably. Now with remote learning, it is allowing each student to have an equal playing field, once we get over the concern of how to navigate each online platform. This year in particular, we spent quite a bit of time working with students on each of the different platforms we knew we would use, making sure they at least all had the same proficiency with the platform before asking them to do anything content related on their own. If we were planning on using videos, we spent time discussing how to learn from the example videos that the various platform providers might send us. For example, knowing we can pause a video and try a problem on our own might not be intuitive for the students.

As students prepare to graduate high school, do you have a sense of how students view the role that computing technology may play in their future education and careers?

As our students move on from our schools we know they will be using more technology, in more ways than we can imagine. I think it is important for our students to see us try a new online platform and fail, and try again, or search for a different platform that gives us more of what we need. They will need to learn new things constantly through their life especially using technology, and I think our students know that. Our students have mastered remote communication, they have seen their social media platforms grow from just a platform to post, to now have the ability to chat, and call, and have a video conference. Many of our students are ready to adapt as the technology around them changes.

A Closer Look – Gina Cappelli (Draft)

For this edition of "A Closer Look," we present two voices from within our classrooms that describe how technology impacts our students' everyday educational experiences in the course of normal instruction. That is, this is not about using technology to provide distance learning. Rather, it is about how technology is blended with in-person, classroom-based curriculum and instruction.

A CLOSER LOOK

with Gina Cappelli, Hawley Kindergarten Teacher

Please give a brief history of your time with the Newtown Public School District

This is my 6th year teaching in Newtown! I have been part of the awesome Hawley team as a Kindergarten and First Grade teacher since I started in 2015. I currently teach Kindergarten. Prior to teaching in Newtown, I taught for 8 years at East School in New Canaan. I also have two children, Ava (Third Grade) and Jack (K) who attend HOM school.

How familiar are children with computing technology when they enter kindergarten? What do they think computers are used for?

It always amazes me how much our younger students know about technology at the age of 5 when they enter Kindergarten! Understandably, they are most familiar with technology such as tablets and touch screens, rather than computers and laptops. They are VERY quick to learn though! When they come to Kindergarten I don't think many of them know what computers can do. They often talk about how their "mommy and daddy have one and use it for work emails." They are always proud and excited to work on their own device in the classroom.

How has the access to computing technology changed what is taught in the classroom?

I wouldn't say that technology has changed what is taught in the classroom as much as it has enhanced what is taught. For example, having access to devices which allow students to access various online programs such as Lexia (language arts) and IXL (math and language arts) creates a tailored learning experience for each student, as they are able to easily work at their own pace and level when they are not working with the teacher. It also provides teachers with accurate and usable data to inform my instruction.

How often do students directly use a computer and what types of activities do they use it for?

Currently the students in my class use an ipad about 3-4 times a week, typically during the language arts and math block to utilize programs such as Lexia, IXL, SeeSaw (interactive activities across a broad range

of subjects) and Reading A-Z. They also have the option to play fun learning games on our ipads during our playcenter block. It is incredible to see how using technology comes naturally to children!

Is there anything you have done to improve distance learning (DL) that might also enhance in-person classroom learning?

Absolutely! As difficult as DL is for Kindergarten there are aspects of it that have already enhanced in-person class learning! For example, all of the programs that the students have access to such as IXL, Lexia, Reading A-Z, and See Saw. The wonderful thing about these programs is the fact that students can easily access them from any device.

In what ways do you find that computing technology is better able to engage students? In what ways might it inhibit engagement?

If you turn a video on or let a student work on a device, you typically have 100% student engagement. That being said, I do have my students spend most of their day interacting with each other through reading, writing and math partnerships as well as playing good old fashioned board games! In my opinion, interacting with other children is the most important aspect of my students' day!

Is there anything else that you feel should be included in this conversation?

We are so very fortunate in Newtown to have access to such wonderful technology that enhances the day to day learning for our students at all ages!