

## CODE Technology Innovation Funds Report

The ASCD (Association for Supervision and Curriculum Development) conference was held on April 2<sup>ND</sup> to 5<sup>th</sup> in Atlanta Georgia. I attended with my colleague, Daphne Brumwell. Topics of the sessions focussing on Technology that we attended included

### **1) “The Flipped Classroom: “Don’t Flip Out. Flipping is Easier Than You Think.”**

“Flipped Learning is a pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.”

It’s about moving the more passive elements of learning (watching a lecture, reading a chapter, etc.) outside of the classroom, so that more class time is available for interactive, hands-on learning. Most people hear “flipped learning” and picture kids watching videos at home, but proponents of it suggest that it doesn’t have to be exclusively about videos. Teachers are encouraged to give students options – some students will still learn better by reading a textbook chapter, but others will benefit from videos, audio files, or any other type of material you can find or create that covers a given topic.

### **The Benefits of Flipping Your Classroom**

Flipping the classroom means completely re-thinking how to do the job you’ve done a certain way for years. And it comes with some extra work. That being the case, why would any teacher bother?

#### **Flipped learning keeps students more engaged.**

The flipped classroom model addresses how students learn best. We all know how hard it can be to stay focused during a long lecture, even if it’s on a subject we’re especially interested in. Discussions and hands-on activities tend to keep students’ interest. While you work with students directly as they explore the concepts they’re learning in class, you can provide immediate feedback that helps them improve their learning as they go.

#### **Teachers provide more personalized attention.**

Students don’t all learn at the same pace and in the same ways. That’s always been a complicating factor in teaching. The question of how to meet thirty or more unique students at their own levels is one that keeps teachers up at night.

The flipped classroom model gives teachers more opportunities to work directly with students. They can therefore clearly see when an individual student is having trouble with a concept and work with them directly to get through it. The increased interaction with students in the classroom will help teachers gain a clearer idea of the different learning styles of their students, so they can tailor their instruction to the needs of each one.

#### **Students can work at their own pace.**

A student sitting in a lecture, diligently taking notes will almost certainly miss one thing the professor

says while writing down another. And that's still a vast improvement over the student whose mind wanders so they don't catch much of anything. If they're watching a video at home instead, they have the power to pause the lecture while they write something down, and rewind and re-watch a particular part they didn't fully understand the first time. If they feel they could really use a second viewing to better understand the concept, they have that option. They have more power over the way and process by which they study and learn.

### **Examples of Flipped Classrooms**

As in most things, there's no one right way to flip a classroom or lesson. But knowing how other teachers have done it can help give you ideas about what will work best for you.

#### **The Backwards Classroom**

Stacy Roshan's classroom is probably the closest to what most people think of as a "flipped classroom" of those on our list, although she's referred to it as the "backwards classroom" herself. She flipped her classroom largely to help reduce the anxiety she saw students experience in her AP Calculus class whenever she'd introduce complicated new concepts.

For homework, her students watch videos she's recorded in advance that cover the concepts explored in each chapter of her textbook. They spend their time in class doing the types of math problems that students have traditionally done as homework. If they have difficulty working through a problem, the teacher's right there for them to ask for help.

She does have to spend a lot of time creating those videos, but is happy enough with the results of using a flipped model that she's been at it for over four years now and is taking the time to experiment with new ways to make it better, like including embedded quizzes in the videos that students watch at home.

#### **The Faux Flipped Classroom**

One of the common criticisms leveled at flipped learning is that it depends on a certain amount of privilege: what about all the students who don't have a computer at home to watch videos on? Tracey Gillies addresses this concern with what she calls the "faux flipped" classroom.

Students who don't have a computer at home can watch the assigned video in class. Gillies' classroom is full of students each doing their own thing – watching a video, working out problems, taking quizzes, or posting or commenting on an online discussion board to get input from other students. Each of them is able to work on an assignment for as long as they need in order to master it, and then move on.

And Gillies is there to work with anyone who needs her help, at whatever point in the process they are at.

#### **An Evolved Flipped Classroom**

Shelley Wright embraced the flipped classroom back in 2011 and wrote a post about her experiences with flipped learning so far. But she followed it up a year later with a new post about how her flipped

classroom had turned into something else – not a reversion back to the traditional way, but a more evolved version of the student-centered classroom she was seeking by flipping her lessons.

As students in her classroom became better at taking the lead on finding valuable resources and pursuing learning their own way, she shifted her focus to helping them with the process of learning how to learn better on their own rather than teaching about the subjects directly.

Her lesson to other teachers interested in flipped learning seems to boil down to: don't think it's all about the videos, they can be a part of it or not. It's about shifting from passive learning to active learning, in whatever way works for you and your students.

### **The Tools of Flipped Learning**

A comprehensive list of every possible tool educators could use to flip a classroom would require a book (and probably still miss some), but we wanted to address a few resources that are common in flipped classrooms.

Of course, familiar tools like YouTube, Evernote, Google Drive, and blogging platforms can play a role as well, but here are a few more specifically suited to flipped learning.

#### **a) Camtasia**

To create videos for students to watch at home, you'll need easy-to-use screen casting software.

Camtasia isn't the only one on the market; you can find a list of some of the other screen casting tools you can use here (including some free ones). We're highlighting Camtasia, because the company has optimized the tool for flipped classrooms.

Using Camtasia is fairly intuitive for new users. It allows you to record either your screen, or yourself. And, in one of the features that most sets it apart, it allows you to add interactive elements to your video. You can include quizzes throughout a video to test students' comprehension of what they've just seen, and you can include links out to any additional materials you want them to read or view. It does cost \$75 if you're buying the Mac version, and \$179 for the PC version, so it's a bit of an investment. But there are volume discounts that may help out if enough teachers in one institution are interested in exploring the flipped classroom.

#### **b) Wikispaces**

Part of the appeal of flipped classrooms is that all that extra class time provides more opportunities for collaboration amongst students. Wikispaces is a great tool for encouraging and enabling that collaboration. It's free, unless your school is interested in purchasing a more secure version of the product.

The free version provides a lot of useful features though. You can give students assignments through the wiki, for both individual and group projects. You can load content for them to review and comment on, start discussions (or let them do so), and track how engaged different students are with the content you've assigned. It's plenty useful for non-flipped classrooms as well, but can help students collaborate and interact more both within and outside of the classroom, so lends itself especially well to the challenges of flipped learning.

### **c) Edmodo**

Edmodo is one of the most commonly used education tools in the world and can even claim the title of largest K-12 social network. It enables a lot of the same kind of tasks that Wikispaces does: loading content and assignments for your students to access, and allowing students to share discussions and comments, for instance. But it adds a much larger social element since you can interact with other students and educators beyond your own classroom. That means you can tap into the content and lessons beyond those you've developed and students can seek out insights beyond those their own classmates have.

The tool also provides analytics that help you spot who needs help with what so you can make your class time more productive. And students can access everything loaded to Edmodo on mobile devices as well as desktops, so they can do their learning wherever works best for them.

### **d) Moodle**

Like Wikispaces and Edmodo, Moodle has the functionality to serve as the platform for a flipped classroom. Teachers can load resources, including any relevant ones they find shared by other teachers in Moodle, to create the assignments and curriculum for each class.

Conveniently, an educator from Northwest Regional ESD created a course on how to flip a class using Moodle within Moodle itself. So you can learn about some of the best practices and processes, while also seeing an example of what a course in Moodle looks like at the same time. You can load all the content related to each module, divide it according to topics, and include a variety of content formats.

### **e) Poll Everywhere**

The last resource on our list is less about providing or organizing content and assignments for your students, and more about actively soliciting their feedback. If the goal of a flipped classroom is to make the learning experience more student-centered, then it makes sense to regularly check in with them. You can use Poll Everywhere both for occasional quizzes to see how students are doing throughout a class period and to solicit input from the class on which concepts to focus on and how to address them. If you have three ideas for activities students can do together to explore a particular concept, make them choices students can vote on. You can group the students according to their preferences, or focus on the winning option for activities that involve the whole class.

### **Additional Helpful Resources**

As you've noticed by now, this is a big subject. You can find a lot more to learn and say about flipped learning than we've covered here. If you want more information before trying the flipped classroom out, here are some helpful places to start:

- [The Flipped Institute](#) has a number of different instructional materials to help teachers through the process of flipping a classroom. If you still have questions after reviewing their materials, they have an "Ask an Expert" feature to help teachers with their more particular difficulties.

- [The Flipped Learning Network](#) also has many different resources, including webinars and a conference, that range from helping teachers new to flipped learning understand the basics, to tracking the larger trends and best practices of the movement.
- [The Center for Teaching and Learning](#) has a Flip-Quick start guide you can download to help you work through the basic process.

### **In Conclusion**

The flipped classroom may not be for everyone. It involves some extra upfront work and just might not mesh with the teaching style of every educator out there. But enough of the teachers that have tried it are having success that you may find it worthwhile to experiment with flipping a lesson or two to see what happens. You might just become a convert.

From: <http://www.edudemic.com/guides/flipped-classrooms-guide/>

## **2) “Picking The Right Digital Content for Students”**

Selecting the right digital content for your blended or personalized learning initiative can be a daunting task. With literally hundreds of digital tools available, how can school and district leaders successfully navigate the digital content landscape? In their presentation at ASCD in Atlanta, Jaraun Dennis, Angela Chubb and Keara Duggan, set out to tackle this question in their presentation titled “How to Pick the Right Digital Content for Your Students.”

According to Jaraun, schools and districts often struggle to select digital tools because they treat the selection process “...like a trip to the candy store. Teachers and administrators go to a conference, see rows and rows of shiny new digital tools, and make a purchase simply based on what they see.” Jaraun continues, “Using this approach, districts end up with lots of digital tools that sit on their shelves without being used and the blended or personalized initiative never reaches its full potential.”

School districts were encouraged to develop a comprehensive process for selecting and purchasing digital tools. While this process certainly looks different in each district, it should include three main components:

- I. an evaluation to identify the reason for hiring the digital tool
- II. a process for obtaining teacher and student input, and
- III. a method for “firing” digital tools.

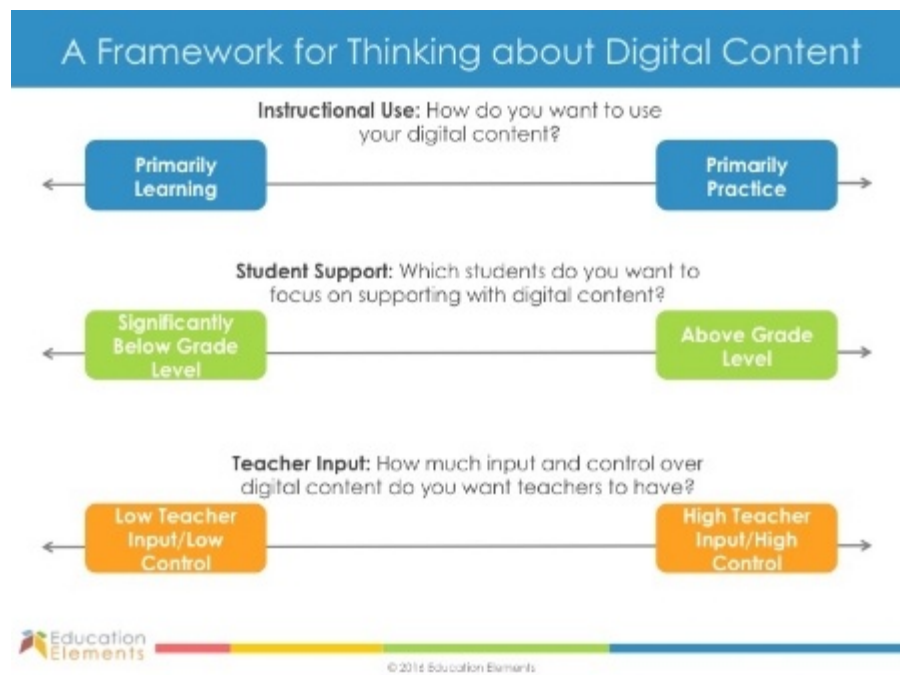
With such a process, schools and districts can avoid the allure of the “bright and shiny” to instead focus on the needs of students.

## Identify Your Reason for “Hiring” Digital Tools

Schools and districts should begin the process of selecting digital tools by first identifying the need they are trying to address. This can be compared to the diagnosis process a patient would undergo at a doctor’s office. Just as a doctor would not write a prescription without first identifying a patient’s ailment, schools and districts should first carefully consider the “ailments” they face before “prescribing” a solution. This process is essential to ensure that an ailment is not misdiagnosed or treated poorly. After all, a prescription for a bandage would do little to treat a bacterial infection.

For example, one district may see a need to support its ELL population while another may see an opportunity for advanced students to learn new concepts. In each situation, the digital tool hired would vary greatly based on the identified need.

With identified needs in hand, schools and districts are prepared to begin the selection of digital tools.



## Obtain Teacher & Student Input

Far too often, schools and district administrators purchase digital tools without obtaining input from those who will actually be using the digital tool: teachers and students. Several benefits can stem from this input:

- Teachers can identify how the digital tool will work alongside their curriculum and standards.

- Teachers can evaluate the reporting functionality and features as well as the remediation and scaffolding structures in the digital tools Students can answer a simple but important question: is the digital tool engaging?

This input can be obtained from events such as digital tool pilots or demos and should include a formalized method to record this input. For example, below is a feedback form from the Enlarged City School District of Middletown in New York. Once this data is compiled and analyzed, schools and districts are one step closer to purchasing their digital tools.

**Rubrics Completed by Teachers**

**Enlarged City School District of Middletown ~ DIGITAL CONTENT DEMO GUIDE**

*During each digital content demonstration, please use the following questions as a guide to sharpen your evaluation of the program being presented. Please also give the program an overall 1-4 rating (1 being not valuable and 4 being very valuable). At the end of each session we will do a quick debrief and decide which bucket to place the digital content provider in (not now, maybe – need more information, yes).*

What was your initial overall impression? Positive? Negative?

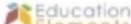
Does this provider complement our overall digital content strategy? Does this content provider align with our District academic goals? Yes - low teacher input - aligns with District goals.

Primarily Instruction vs. Primarily Practice

- Is the content best used for primarily instruction or primarily practice?
- How long are the lessons? Do they incorporate check for understandings/formative assessments?  
Grade level approp. lengths - Early Elem = 20-25 min/Upper 40-45m
- Can students pause the program and come back to it later?  
Yes
- What scaffolds are available to kids if they get stuck?  
Lessons are adaptive so questions will get easier - then teacher intervention is needed.

Below Grade Level vs. Above Grade Level

- What grade levels does the content cover?  
K-8 Instruction



### Know How to “Fire” Digital Tools

Knowing when and how to “fire” digital tools that are not meeting student needs adequately can be just as important as hiring the right digital tool. Schools and districts should have a formal process in place for students, teachers, and administrators to provide feedback on digital tools on a periodic basis.

This feedback can include a variety of questions deemed most important in identifying the best digital tools (which may be best ascertained through a platform that can track data). What is the usage rate of the tool? How engaged are students? Has the tool boosted student growth? Does the tool provide adequate scaffolding and remediation? Is the tool essential to your curriculum?

By aggregating such feedback, schools and districts can identify the tools that best fit their needs and prevent the dedication of financial resources and time on unnecessary tools

From: <https://www.edelements.com/blog/3-things-to-consider-when-selecting-digital-tools>

### 3) “No More Snow days. One State’s Approach to Digital Learning”

See attached sheets

Other Technology sessions attended included:

#### 4) Why Digital Leadership Matters:

There are 3 core pieces of digital leadership. It must be a model use of technology. Students need a strong understanding of the technology in the learning process in order to be an effective collaborator leading to productivity and improved communication. This session emphasized the role that the principal and senior administrators must play in modeling the use of digital tools. It is very hard for us to expect teachers to be familiar with all sorts of technology to support student learning when many principals and many senior leaders are the first ones to almost brag about their lack of efficacy in this area. A great point made was around performance appraisals. A principal needs experience using digital tools before he/she would confidently be able to support this area in a performance appraisal process for a teacher.

The presenter reminded us that, “Just because we see technology being used, does not mean it is being used effectively.”

#### 5) Twitterpated: How to Take Twitter to the Next Level:

Twitter continues to be suggested as one of the best forms of professional development for educators. Those educators who use Twitter regularly have opportunities to follow some of the best and brightest authors and researchers in the field. Whether you are a “tweeter” yourself, or simply someone who “lurks,” Twitter should be a staple on every educators smartphone.

- #edchat is a great tag to follow
- Twitter Chat would be a good way to do some on-going PD on a topic.
- [Bit.ly/educhatcalendar](http://bit.ly/educhatcalendar) - takes you to a page that lists all the education chats available for each night. It was incredible to see the number of chats that one could participate in daily on any number of topics!
- Tweetdeck is a way to have a number of # up on the screen all the time. It is an app, but it does not work on an iPad; ParticipateLearning is another similar way to do this on a computer.
- Use [www.canva.com](http://www.canva.com) - to make visuals. Try to include a visual with your tweets - they tend to get more attention.

#### 6) Using Videoconferencing Effectively for PD and Student Engagement:

Where can Video Conferencing take you?

Ways to start a presentation:

- with a story
- give a fact



-Goal would be to keep people in their buildings rather than spend valuable time traveling to and from learning sessions

- Take a look at Orange County's 5 year strategic plan - 2020; it is the foundation for all SIPSA goals; district has nearly 200,000 students - 9th largest district in the US.
- They will have a 1-1 program in a few of their schools this year - as they did this, they started by thinking about how assessment could change with digital tools; staff were going to need digital resources to support; purchased some easy platforms (Safari Montage, LaunchPad) to support the interaction with devices
- "We are prepared by our past." How do we see this as it relates to technology - need to unlearn many things that are engrained.
- How do we capitalize on available technology to make things work? Potential roadblocks - fear, skill, money, capacity, infrastructure
- Video conferencing puts educators in the driver's seat - more time this way, be prepared to rethink PD, detours for PLCs and collaboration, the work itself;
- For PD - capture model lessons as a way to gather what they are doing in the classroom;
- Use of Safari Montage Live software. Board did a promo video to get the conversation started about using SML in their district
- Ability to create on-demand sessions that would allow for teachers or principals to log in and get content related to their needs
- Time equals money; need to find creative ways to reach more teachers with less staff
- Ability to use this to support students and specific learning around content; parent engagement
- Able to use the platform teacher to teacher to collaborate - perhaps engage in inquiry?
- Using LMS to support students who are in the hospital or who might need home instruction?
- Other ideas for use:
  - substitute solution - way to ensure students still get good content
  - alternative to out of school suspension
  - teacher virtual coaching
  - student/parent use
  - virtual field trips
- All videoconferencing is set up through a link. You send it out, they open the link and then they log in.

**While at the conference, we also took advantage of sessions on:**

The Principal 50: Critical Leadership Questions for Inspiring School Wide Excellence

The Power of One

Excellence Through Equity: Five Principles of Courageous Leadership to Guide Achievement for Every Student

Job-Embedded Instructional Leadership Coaching

The Journey to a Growth Mindset

Get Every Teacher to be Like the Best Teacher

Leading with Focus: How Leaders can Accomplish More by Doing Less

It Takes a Team: One School's Digital Transformation

### Impact of the Senior Team's Learning on Board Initiatives

#### **1) "The Flipped Classroom: "Don't Flip Out. Flipping is Easier Than You Think."**

The reason that the two sessions I attended were of interest to me was because I was not aware of the concept of a flipped classroom. It is an intriguing strategy which I believe may help in the student achievement at our one high school. It makes perfect sense that students begin their learning while at home and then return to school the next day to have that learning reinforced. The corollary is that they may leave school with homework that may not be understood and would become frustrated with attempting to complete it. It sometimes is a vicious cycle. I would like to set up a pilot at our high school to try this strategy to see if it truly increases student achievement. I'm thinking this would be of benefit in our Applied level classes where our EQAO scores are very low. Because of the groundwork that would need to be completed in preparing for such a class, I would suggest we start the pilot in second semester of the 2016-17 school year. This would also give us comparative data with the first semester classes which are taught in the more traditional matter. We would need to find a champion in our teaching ranks to get on board with this initiative which may be a bit of a challenge.

#### **2) "Picking The Right Digital Content for Students"**

I attended this session as we have been quite frustrated as a Senior Team with the use (or lack thereof) of technology in some of our classrooms. The comment by Jaraun that "districts end up with lots of digital tools that sit on their shelves without being used and the blended or personalized initiative never reaches its full potential" is what is happening in our board. We have made major investments in technologic hardware but some of our teachers are not employing that technology in their classroom lessons. We do have about 40% of our teachers that have embraced the use of technology in their classroom but the remainder rarely if ever do. The fault for this lays squarely on the shoulders of our senior team as we have never really provided appropriate training to our teaching staff. Something for which we need to better plan in the future.

#### **3) "No More Snow days. One State's Approach to Digital Learning"**

Being from Northeastern Ontario, I thought we had the market cornered on snow days where buses are cancelled. Imagine my surprise to find out that in eastern Kentucky, students can miss up to 25 days or more due to snow. This is because they are on the lee side of the Appalachian Mountains. Depending on the number of days that are missed, districts could be required to make them up in the summer. To avoid this, there they have developed a system where through the use of technology, students are able to continue their learning. School districts have become creative about providing access for those students:

- a) Students can "check-out" device
- b) Pre-load content onto device or jump drive
- c) Internet "switch" than can be activated at the district

- d) Park a Wi-Fi bus in the community
- e) Project-based work
- f) Opening school buildings for computer lab use
- g) Sending staff to community locations that have internet/devices
- h) Agreement with local utility company/internet service provider
- i) Project-based work
- j) Alternate assignments/paper packets

These strategies would certainly be useful to our region, although we tend not to have more than 6 snow days on average per year. However, it could be something to consider in the future.

#### **4) Why Digital Leadership Matters/Twitterpatted/Videoconferencing**

In my role as SO, we are continually searching for ways to use technology to support our work. At the NCDSB, we have always been front-runners in terms of getting the hardware, software and infrastructure in place to support the use of digital tools in the classroom. However, we continue to struggle with implementation across the district. One of the most important things we can do to improve the consistency in implementation is to model the effective use of a variety of digital tools to our staff. This includes the use of things like videoconferencing and webinars to support professional learning, using productivity applications to support communication and organization within our departments and considering how social media can support branding and communication with all our stakeholders. The sessions I attended at ASCD have provided me with a number of concrete ways I can better use digital tools to support these goals. I look very forward to planning and implementing a comprehensive communication strategy that will be used to help move student achievement forward at the NCDSB.

Respectfully submitted,

Glenn Sheculski

Daphne Brumwell