



8 STEPS:

TO BUILDING A DIGITAL CURRICULUM
IMPLEMENTATION STRATEGY

PLAYBOOK VOL. 5

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INTRODUCTION

The phrase “digital curriculum” is an integral part of the world in which educators now exist and has transformed the way students learn, teachers teach, and leaders lead. This playbook will help you improve your digital culture and ultimately promote the success of all students. In the pages ahead, you’ll encounter key insights and resources that will move digital learning experiences from good to great. Drawn from a wealth of research, coupled with real world examples from classrooms and schools, this playbook will walk you through the steps necessary to implement a successful and relevant digital curriculum. There is no doubt that the sky is the limit through a forward-thinking mindset, a school culture committed to risk-taking, and an innovative support structure.

Are you ready to take a ride on the digital curriculum train? Great! Hop on board!



WHY YOU SHOULD READ THIS PLAYBOOK.

Chances are you've experienced the positives and negatives of digital curriculum in the role that you serve as an educator. School districts are spending a significant amount of money on an annual basis to beef up their infrastructure, purchase devices, and train staff so that their digital curriculum is implemented effectively. With this being said, what does it really take to ensure that your digital curriculum is effectively being taught by teachers and subsequently providing students with the education they need? After reading this playbook, you will come away with a working knowledge of the following non-negotiables when it comes to rolling out a relevant digital curriculum:

- Establishing an innovative digital curriculum vision
- Establishing a set of goals and success measures for the digital curriculum vision
- Establishing a sound device integration plan
- Establishing a clearinghouse of digital resources to support curriculum initiative
- Establishing a plan to teach within the digital curriculum framework
- Establishing a digital curriculum support structure
- Establishing a stakeholder plan to ensure curriculum success outside of the school walls
- Establish a digital curriculum impact plan and assessment tool to guide future decisions

So what do you say? Are you ready? Let's gets this digital curriculum train going!

DO YOU HAVE A VISION?

Establishing a vision for your digital curriculum is easier said than done. But have no fear, we will lay out the groundwork so that you will be well on your way. Remember that above all else, relationships and pedagogy really matter if your digital curriculum is to truly have an impact. When establishing a vision for your digital curriculum, you need to ask yourself the following questions:

“ How will it engage students in meaningful and relevant ways? ”

“ How will it push teachers to create innovative learning environments? ”

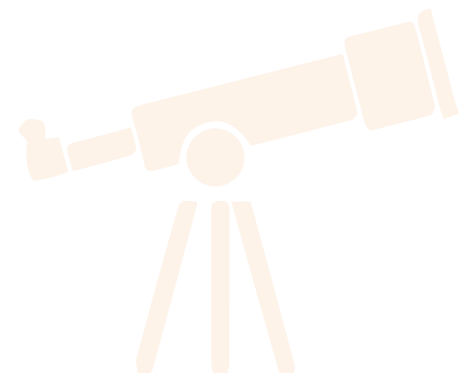
“ How will it help address gaps and strengths as it relates to student performance? ”

“ How will teachers be supported with this new way of life? ”

“ What impact will it have on learning at home? ”

“ What role do school and district leaders play in its success? ”

The vision for your school's or district's digital curriculum must include keywords and phrases such as “autonomy”, “choice”, “risk-taking”, “innovation”, “real world application”, “collaboration”, “reflection”, “creation”, “curation”, and “paperless”, to name a few. The vision must focus on putting a new twist on old methods. From turning in assignments to real-time assessments to easily accessible content, there will no doubt be a huge shift from how things used to be to what is going to be done in the here and now. No subject area should be left behind when looking at all the innovative ways your digital curriculum will transform learning spaces.



ARE YOUR GOALS SET?

What type of goals should you set for your digital curriculum? They definitely should be student-centered and focus on such things as differentiation, autonomy, creation, and collaboration. From an assessment standpoint, teachers must be able to gauge student comprehension of the topic at hand in real-time. There are many “tools of the trade” that provide users with this capability. As it relates to learning, the main focus of your digital curriculum should be on how students can gain exposure to content at their own individual level.

Teachers must be able to thrive within the framework of your digital curriculum. They must be supported in a way that allows them to take risks and grow professionally on a consistent basis.

School leaders have a critical role in the establishment of a pedagogically sound digital curriculum. It’s imperative that they incorporate input of all school stakeholders during the process and constantly focus on the pillars laid out in Eric Sheneringer’s book, “Digital Leadership.”

Parents and community members must be incorporated during the process as well. Their perspective and involvement as it relates to learning experiences in the virtual world are critical on many fronts. Parents support their child’s learning at home and community members enhance student learning experiences in preparation for the real world.



DEVICE INTEGRATION PLAN

A key component of any successful digital curriculum initiative is device access. Whether it's BYOD (Bring Your Own Device) or 1:1 (one device for each student), students and teachers optimally would have access at all times. Understandably, this is a perfect world scenario. Money is a big factor in making this sort of dream become reality. For the sake of this playbook, let's assume that device access is well within reach. This by no means puts your school or district in the driver's seat. There needs to be a plan in place to ensure that needs of all stakeholders are met.

Let's start with the teacher's ability to successfully provide relevant learning experiences for students. Some key questions to consider:

- What procedures will students follow on a daily basis to ensure that their devices are taken care of and utilized where appropriate?
- How are the varying needs of students going to be met when devices and digital curriculum are meshed together?
- How will the teacher be supported from a professional growth standpoint?
- How will teachers gauge the effectiveness of the device integration and digital curriculum?
- What role will school and district leadership play in the success of the device integration plan?

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The questions raised here are instrumental with the overall success of this plan. Let's take a look at the impact that Chromebooks can have on a school's digital curriculum. A Chromebook is completely cloud-based and requires WiFi to work effectively. It runs off the Chrome browser and is linked to a user's Google account. Many schools lean towards Chromebooks due to their low cost and multi-user capability. It's important to remember that your school or district must register for a Google Apps for Education account. This way each staff member and student can have access to Gmail, Drive, and the hundreds of apps and extensions available in the Chrome store. The evolution of Google Classroom allows students to thrive in a paperless learning environment.

Another viable option is to purchase iPads for students and staff. It's a bit more money, but has features that the Chromebook does not. In particular, the touchscreen allows users, especially at the younger ages, to access curriculum by way of web applications with a few taps of the screen. iPads work well in learning experiences that incorporate stations or require mobility. Apple still has not figured out a way to make the iPad multi-user friendly, but there might be something in the works very soon. The Airplay feature of the iPad allows students to share their work in class on the big screen.

BYOD, or Bring Your Own Device, lowers costs for districts as they do not have to purchase devices. Students bring their own device to school each day and tap into the filtered WiFi. Many feel that this is a viable alternative as students do much of their learning utilizing cloudbased products. As long as your digital curriculum allows for differentiation and autonomy, students will be very successful in this sort of environment.



WHAT RESOURCES SHOULD YOU INCLUDE?

The implementation of a 21st century digital curriculum must contain a vast amount of resources that are accessible to school stakeholders. All subject areas must be addressed and provide options that are suitable to learners. Digital resources must be easily accessible in a centralized virtual location and provide staff with the ability to upload and or download with a few taps of the screen or clicks of the mouse. Sharing of best practices must be the centerpiece of any successful digital curriculum rollout. Over the years, educators have lived in isolation, but with the evolution of technology, collaboration and sharing have become much easier. Resources should have the ability to be utilized across multiple subject areas, provide feedback to students in a timely fashion, engage learners in meaningful experiences, and be accessible on most devices that are connected to the internet.

Any successful digital curriculum will have the ability to differentiate resources for students and teachers. It's imperative that autonomy is at the forefront of digital learning experiences. For example, students in a language arts class must have the ability to show what they know about a certain book they are reading utilizing a plethora of web applications like PearDeck, WeVideo, or GetKahoot. These tools not only enhance comprehension for that particular student, but also the entire class. To that end, digital resources must be flexible and accessible to all stakeholders. The National Education Technology Plan released by the Department of Education explicitly supports digital learning experiences that address diverse learners. Speech-to-text features, read-aloud books, virtual reality devices, and so much more can promote the success of all students.

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Think Through Math is a robust digital resource that helps students of all ages engage in real world math experiences. There are several unique aspects embedded within the program including 1:1 virtual support from certified math teachers. Students can celebrate math milestones by collecting points, customizing avatars, and donating to charities. Most importantly the various learning experiences are personalized, help build confidence, and prepare students to be successful on assessments that they will encounter in the future. Think Through Math is the sort of online program that will move your school or district's digital curriculum from good to great.

Social studies teachers can provide students with a blended learning experience utilizing a tool like Blendspace. Lessons can be built and pushed out digitally. Documents, websites, videos, content, and so much more can enhance student's learning experiences of the topic at hand. An important part of a robust digital curriculum is for teachers to have the ability to build lessons and share out to fellow colleagues or students.

Reading and writing are two important skills that all students need in order to be successful in life. Literacy across multiple disciplines must be a main focus of your digital curriculum. Teachers must differentiate the ways students tackle text by way of tablets, audiobooks, translation tools, and embedded assessments. From a writing perspective, students need access to tools that assist them with putting words on their devices. For example, Citelighter helps students organize their thoughts and what they have used in their research so that their writing makes sense. Speech-to-text capabilities build confidence within students, especially struggling writers. Utilizing the voice typing feature in Google Docs helps with writer's block and gives student another option to express their thoughts.

Digital curriculum resources are crucial to ensuring that learning environments are engaging, relevant, and meaningful. It's important to remember that there are thousands of apps, websites, and online programs, which is why it's imperative that they are organized by subject area and grade level on a centralized web page. It's also important to have your "go to" websites that are updated daily with digital resources that can be used that day in class. Monica Burns' Class Tech Tips website provides daily examples of how various iPad apps can be used to enhance student learning. Alice Keeler does a phenomenal job of consistently pushing out content related to Google Apps for Education and Google Classroom. Richard Byrne's Free Technology for Teachers website provides tips on how to successfully integrate a wide array of ed-tech tools across all grade levels and subject areas. Of course, these are just three of many relevant "go to" sites to help support the teaching and learning goals of your school's digital curriculum.

DIGITAL TEACHING METHODS

How can teachers best support student learning while adhering to the digital curriculum? One approach is to focus on the SAMR Model developed by Dr. Ruben Puentedura. It provides guidance on how teachers can set their learning environments up to help promote the success of students in the digital world. The letter “S” stands for substitution and how technology can act as a direct tool substitute with no functional change. Over time, and still to this day, students use pen and paper to take notes during class. Now with devices infiltrating schools, students can take notes on Google Docs or Microsoft Word. The letter “A” stands for augmentation and allows technology to act as a direct tool substitute, with functional improvement. Students can now collaborate in real-time on a Google Slide presentation from two different places on two different devices. The letter “M” stands for modification and allows for technology to significantly redesign tasks. Students can use a tool like Educreations to create screencasts of math concepts, helping to enhance their own knowledge of the topic at hand. These sessions can then be shared with their peers and students around the world using a few taps of the screen or clicks of the mouse. The letter “R” stands for redefinition and allows tech to create new tasks that were once thought inconceivable. 3D printers have infiltrated the educational scene over the past few years and have allowed students to show what they know about the topic at hand by designing and printing an object. For example, students in social studies class may study Ancient Egypt and then design and print their very own pyramid as an artifact of learning.

There are several other models and standards to consider when trying to impact student learning through your digital curriculum. ISTE’s standards for teachers, administrators, students, coaches, and computer application teachers are comprehensive in nature and provide a clear path to how technology can support pedagogically sound teaching. Another framework to consider is Eric Sheninger’s, “7 Pillars of Digital Leadership,” which focus on how technology, coupled with empowerment and autonomy, can do wonders for an innovative school culture. It’s important to remember that technology integration is only as successful as the teacher who values pedagogy and relationships.

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The National Education Technology Plan released by the Department of Education provides clear insight on what teaching, learning, and leading must look like in the 21st century. This innovative document provides sound advice on the important role technology plays in education. In conjunction with pedagogically sound teaching and a commitment to addressing every student's needs, technology can do wonders. Autonomous learning environments, accessibility tools, and access to relevant digital resources are all functions of an innovative learning environment. This educational document is full of digital curriculum resources and initiatives that can move your school or district from good to great.

Any successful digital curriculum will have the ability to differentiate resources for students and teachers. It's imperative that autonomy is at the forefront of digital learning experiences. For example, students in a language arts class must have the ability to show what they know about a certain book they are reading utilizing a plethora of web applications like PearDeck, WeVideo, or GetKahoot. These tools not only enhance comprehension for that particular student, but also the entire class. To that end, digital resources must be flexible and accessible to all stakeholders. The National Education Technology Plan released by the Department of Education explicitly supports digital learning experiences that address diverse learners. Speech-to-text features, read-aloud books, virtual reality devices, and so much more can promote the success of all students.



ESTABLISHING A DIGITAL SUPPORT STRUCTURE

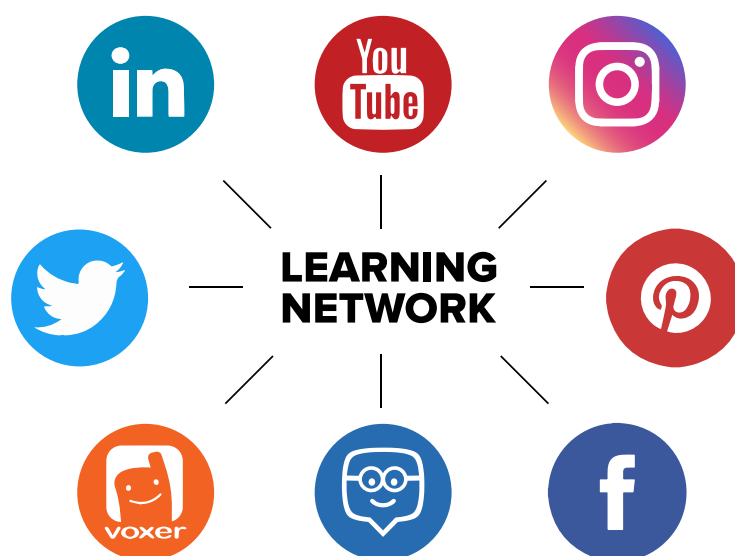
It's imperative to have access to a digital support structure in order to ensure that the mission and goals of your digital curriculum are met. Take for example the role of personal learning networks in the world of education: educators from around the world are taking to Twitter, Facebook, LinkedIn, Voxer, Google+, and host of other social media sites to share, reflect, and push their thinking. Being a connected educator with the help of social media can help educators bolster their digital arsenal of effective practices and resources. Whether you are looking for resources on flipping instruction or trying to find ideas on blogging in the classroom, tools like Twitter and Pinterest can help educators move from good to great in the digital world.

School leaders will often look for a place that has like-minded educators to talk shop and find solutions to address pressing issues. Every Saturday morning at 7:30 EST on Twitter, hundreds of educators share their insight on #Satchat. Topics that are discussed include educational technology, the whole child approach to learning, digital resources, and school culture to name a few. Questions are shared out and answered using a Q1/A1 format. Over the course of the hour, thousands of tweets containing valuable advice and resources are made available to participants. Leveraging the power of social media, in this case Twitter and the #Satchat hashtag, can help expand educator's personal learning network and ultimately add value to what schools are trying to accomplish with their digital curriculum.

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There are vast amounts of resources related to assessment by way of blogs, instructional coaching, Google Apps for Education, and passion-based learning to name a few. Starr Sackstein's blog does a tremendous job of providing educators with a unique perspective on assessment, particularly through the lens of educational technology. Peter Dewitt's blog titled Finding Common Ground provides guidance on a host of educational topics including instructional coaching, intervention, ability grouping, data analysis, and standardized assessments. Eric Sheneringer's blog, A Principal's Reflections, provides guidance for school leaders who looking to thrive and support others in the digital world. These blogs and countless others are shared often throughout personal learning networks and on social media sites like Twitter. There is no doubt that the educational world has come out of isolation over the last several years. Taking advantage of these types of networks will not only help you grow as an educators, but move your digital curriculum forward in a positive direction.

Professional learning communities can provide educators with an opportunity to grow their digital curriculum once it's established. The utilization of technology can help facilitate collaboration, learning, and reflection within PLCs. Take for example Google Apps for Education, in particular Google Classroom; once your PLC is established in in the physical world, sharing and collaboration can take place in the virtual world throughout the school year. Digital curriculum resources can be posted and virtual conversations conducted with a few clicks of the mouse or taps of the screen.



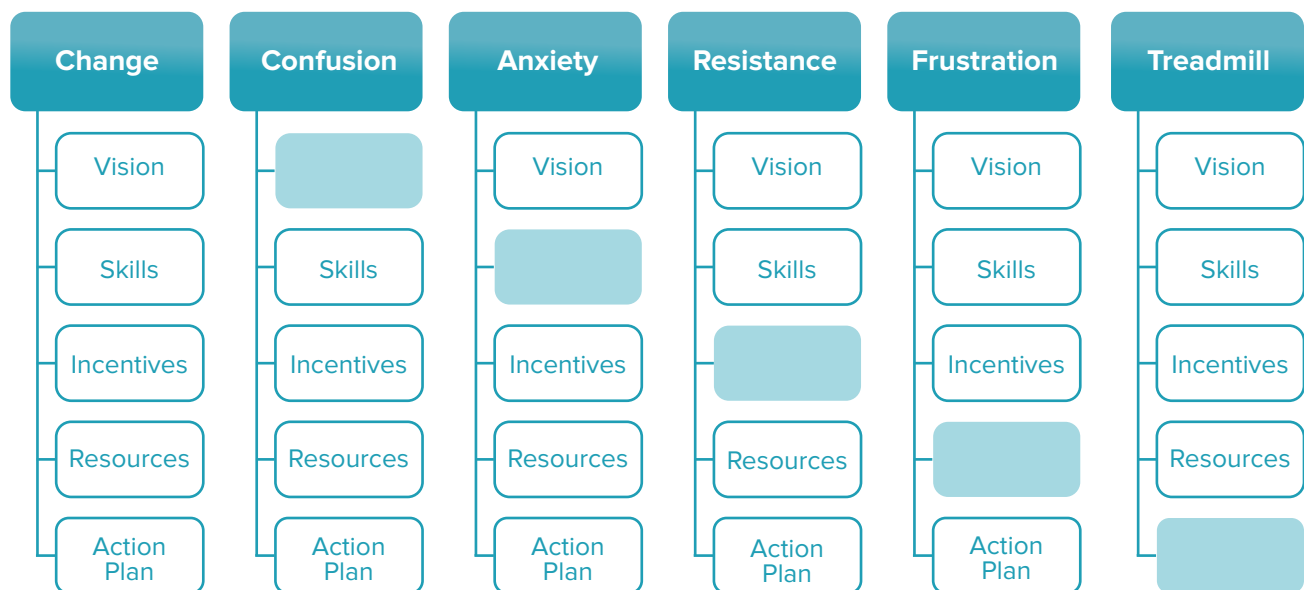
ESTABLISHING A STAKEHOLDER INPUT PLAN

Any successful digital curriculum has stakeholder input written all over it, meaning that students, teachers, administrators, board of education members, community members, and parents had a voice in making the digital curriculum engaging and relevant. There is no doubt that the digital curriculum will impact students and teachers the most, but it's imperative that an "all hands on deck" approach is taken to ensure that it's well-rounded. Over the years, technology has given stakeholders a way to be an integral part of a school's digital curriculum. Take for example how Mystery Location Calls can bring community members into your classroom so that students can learn about careers and geography. Billy Krakower, Jerry Blumengarten, and Paula Naugle write about this innovation in "Connecting Your Students with The World." Brad Currie once connected with an elementary class in New Jersey using FaceTime, in which students asked probing questions to determine location and gather insight on a career as an educator. Brad Currie's book, "All Hands on Deck: Tools for Connecting Educators, Parents, and Communities" provides other alternatives to giving stakeholders a voice in the school setting.

So how can stakeholder input be gathered for your digital curriculum, besides the typical meeting or planning session? Google Forms or Survey Monkey are great tools that can provide insight in an efficient manner. Specific feedback can be generated and guide the decision-making process with your digital curriculum. Conducting Google Hangouts or Skype sessions with your digital curriculum committee are viable alternatives as well, especially if meeting in person is not an option. These sessions can be recorded and viewed by committee members at a later time. In terms of building the actual curriculum, Google Docs allows multiple users collaborate, write, and comment in real time. Slack is a team messaging service that can improve communication and efficiency for large groups that working on a project like improving digital curriculum.

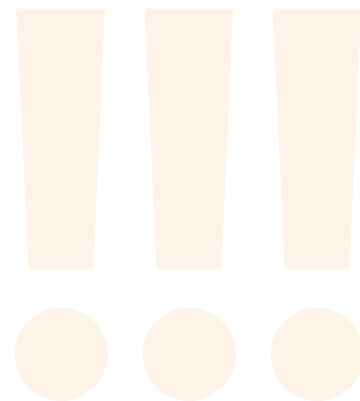
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The most important stakeholder in the digital curriculum process is the student. Incorporating a student voice is critical if meeting the needs of each and every student is the goal. For this to happen, students need to be met where they are. There is no better place to engage students than on social media. Twitter, Instagram, and Snapchat are places where students reside in the virtual world. Seeking input on digital curriculum decisions through tweets, posts, and snaps can do wonders for making curricular decisions that are in the best interest of students. Questions, polls, and informational media can also be blasted out to students through these social media channels.



CONCLUSION

There is no doubt that we live in one of the most exciting times in education. Technology has the ability to level the playing field for so many parts of the educational process. A viable and living digital curriculum can be established in no time with the correct guidance. The fact remains that students are going to enter a world where they will be required to thrive with the help of technology. It's in the best interest of our collective school communities to come together and make certain that all the digital parts are in place to make these dreams become reality. Through a forward-thinking mindset and a commitment to providing innovative educational experiences, an all-encompassing digital curriculum can do wonders for student achievement.



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ABOUT US

Think Through Math

At Think Through Learning, we believe that success in mathematics transforms the way students perform in school and beyond, and we are driven to motivate students in unprecedented ways. With our award-winning Think Through Math on-line instructional system, every student can have his or her own teacher at precisely right moment – whenever, wherever they are. Our patent-pending web-based solution provides adaptive math instruction that is aligned to each state's standards. Access to live, U.S.-certified teachers during the day, at night, or on weekends provides students with the individualized attention students need – whether they are in school, at home, or on vacation. Our unique system of motivation builds confidence and competence in mathematics, allows students to overcome math anxiety, and ultimately helps kids learn – and love - math!

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