



EMBRACING DIGITAL

CENTER FOR
DIGITAL
EDUCATION

In collaboration with:

ISTE

*Now is the time to go
all-in on digital content.
Here's how to do it right.*

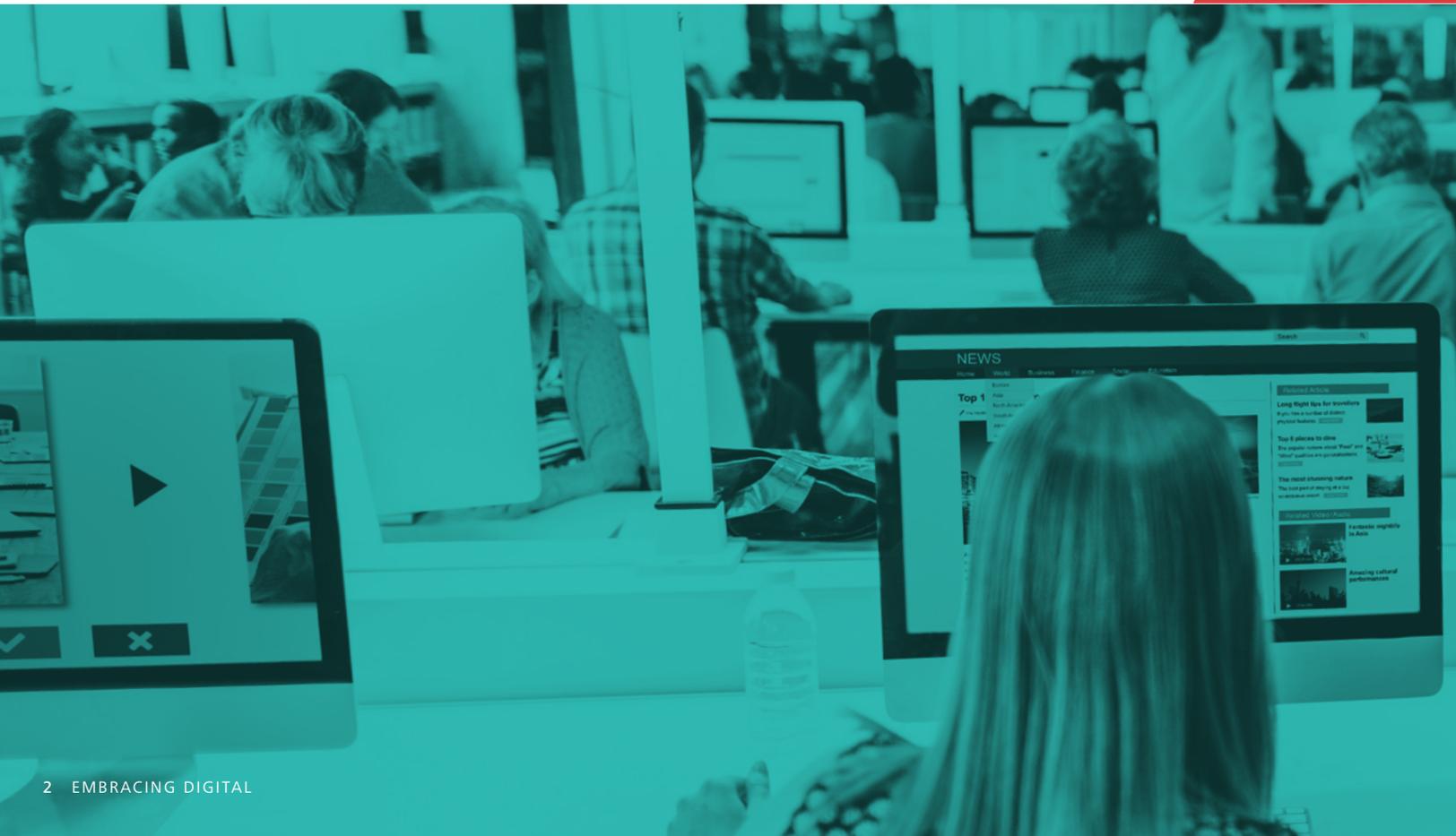
Introduction

Digital content is everywhere. Traditional media companies ranging from local television stations to national newspapers and magazines strive to create online materials they can sell at premiums to advertisers and offer as value to audiences. In the world of social media, companies like Snapchat and Facebook are locked in a race to release the latest and greatest way for users to connect with each other.

Academia — especially K-12 public education — is not immune to these developments. Studies show most students ages 8 and older have mobile phones or access to some form of technology, and many of them consume content through these devices. These trends suggest that school districts would be wise to expand their respective curriculum to incorporate digital content and attempt to share information with students in the formats they desire.

The question is how.

The purpose of this paper is to dive deeper into how best to implement digital content. The Digital Age is upon us. It's time your content caught up.



The Every Student Succeeds Act and Digital Content

The Every Student Succeeds Act (ESSA) creates new avenues for public K-12 school districts to incorporate technology.

Specifically, ESSA gives states the rights to define educational standards for their schools and the flexibility to determine how students meet them. It also paves the way for districts to embed technology in multiple areas of education. The law authorizes funding streams that potentially can help states and districts invest in technology to support digital content adoption, personalized learning, advanced assessment, data analytics and more.

In short, the new law presents an opportunity for school districts to more fully embrace digital content.

One block grant, known as the Student Support and Academic Enrichment Grant (SSAEG) program, was funded at \$400 million for 2017. Although this is a large difference from the \$1.35 billion ESSA originally authorized for the SSAEG program, this money is still allocated to provide states a flexible way to spend federal dollars to help students receive a well-rounded

education, improve school climate and culture, and promote the effective use of technology.

Other funding opportunities include the Education Innovation & Research grant. Modeled after the i3 program, this grant will fund development and implementation of innovative approaches to improve student learning. There could be nearly \$100 million in the pool for this grant by 2019.

The law should impact the prevalence of technology in other ways, too. With ESSA, chief academic officers (CAOs) can scale practices and transition from “pockets of modernization” to comprehensive statewide strategies. Districts can also shift the mindset toward technology and embrace growth that becomes a key to ensuring scalability, sustainability and the confidence needed by all stakeholders to make large-scale changes.

Finally, ESSA’s renewed emphasis on personalized learning dovetails nicely with digital content overall, encouraging districts to reconsider their approach to content delivery and understand the value of offering at least some material digitally.



Options for Digital Content

Before we give advice for effectively implementing digital content, it's important to understand the different types of digital content – and the benefits of each.

↘ OER.

Open educational resources (OER) comprise teaching, learning and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use. They can be found in disparate places such as Google and YouTube or specific OER receptacles such as the OER Commons. They include full courses, course materials, modules, textbooks, streaming videos, tests, software and many other tools. What's more, OER follow the 5R openness framework developed by Lumen Learning, which essentially means educators have the right to copy the content, reuse it, revise it, remix it and redistribute it. Teachers tend to like OER because the material can be continuously updated and customized, and it never gets stale. Districts like OER because of the money they save. OER themselves are free, which enables superintendents to shift funds traditionally spent on textbooks toward other priorities.

↘ Purchased or leased material.

Content in this category can be purchased from other districts or from commercial enterprises. Once a district buys or leases the content, it also retains the rights to modify the material as needed. Purchased or leased content has a higher upfront cost, but if enough students use the material to amortize that cost a district can enjoy a decent return on its investment. That said, purchasing content also necessitates other considerations, namely renewal expenses, interoperability with existing enterprise or other software solutions, alignment with standards and district initiatives, and usability that can impact rate of adoption.

↘ A hybrid approach.

Districts may end up with a mixed-media approach where some content is purchased and some is OER. This format can work nicely and it doesn't matter if the OER is supplemental to the purchased content or vice versa. This offers a good blend of digital content resources and a great amount of flexibility to teachers.



Successfully Implementing Digital Content

The Center for Digital Education recently convened a group of CAOs to get a better sense of how they find, evaluate, implement and normalize digital content in their respective districts. The big-picture perspective on what we learned: Embracing digital content is more complicated than most might think. More specifically, our conversations with these CAOs revealed five critical takeaways to consider as you work to successfully implement digital content:

↘ Emphasize
evaluation

↘ Leverage
partnerships

↘ Give students
a voice

↘ Find a
reliable LMS

↘ Pilot, pilot,
pilot

The following pages discuss these takeaways through real-life district insights and examples. We hope you find them instructive and look to the lessons learned to help inform the decision-making process in your respective districts.



Takeaway #1

Emphasize Evaluation

Before you can launch a digital content program, you need to establish a bulletproof procedure for evaluating the content you'll use. This is the mantra at Consolidated High School District 230 in Orland Park, Ill., where Stacey Gonzales, director of curriculum and instruction, says she and her colleagues have established rigorous procedures for vetting content to determine if it's something they might consider for district-wide use in the classroom.

The district's approach is decentralized; in every discipline it rests with small groups of about seven educators — one of which is a special education teacher — from each of its three schools. Gonzales says these Curriculum Writing Teams (CWTs) function as a representative sample of all teachers for each course to determine if potential pieces of content are worthy to include in the district's curriculum. Once a teacher formally submits a request to evaluate a particular piece of content, the teams begin the professional learning required to implement the digital

content with fidelity. Because teachers are always exploring new ideas for content — including researching best practices from national organizations, colleagues and vendors — the curriculum teams work year-round.

As you read this, for instance, Gonzales estimates roughly 20 CWTs are engaged somewhere along the evaluation process.

All content must satisfy several standards. The first is the curriculum standard — all digital content must align with Common Core State Standards requirements for the state of Illinois. Second, the content must meet standards for special populations. Because District 230 has a large number of English language learners (ELLs), all viable digital content pieces must be open to translation services other than Google Translate. The last standard has to do with professional development (PD). For the district to seriously consider content, it must come with a bare minimum of PD that includes monthly training sessions and some sort of in-person coaching for educators.



It's important to have an evaluation process to properly vet the digital content your teachers will use.

Gonzales says CWTs must keep written records of every aspect of evaluation, and notes that a failing grade in any one area may result in a failing evaluation overall, essentially disqualifying the content completely.

“There are a multitude of requirements our teams must evaluate to ensure prospective content will meet student learning outcomes,” she says. “It’s designed to be a thoughtful, productive process.”

In fact, the evaluation cycle in District 230 plays out in three stages. Stage 1 includes basic vetting, and can happen in as quickly as two or three days. Once a CWT has deemed that a piece of content is worthwhile, the team begins Stage 2 and writes a formal proposal. Gonzales reviews this proposal herself, negotiates the terms with the vendor, and, upon approval, delivers it to the Board of Education, where it sits for 30 days for public review. Provided the feedback is generally positive, the proposal is approved and the implementation process begins — the third and final stage.

The entire process takes about six months.

Gonzales notes that the only loophole in the evaluation process pertains to free, typically bare-bones versions of digital content that software developers use to entice educators. While she wants teachers in the district to feel like they have instructional autonomy and freedom, she also understands it’s her job to control who on the network is using what. Currently, Gonzales doesn’t have the resources to monitor whether or how educators are using these scaled-back iterations of digital content.

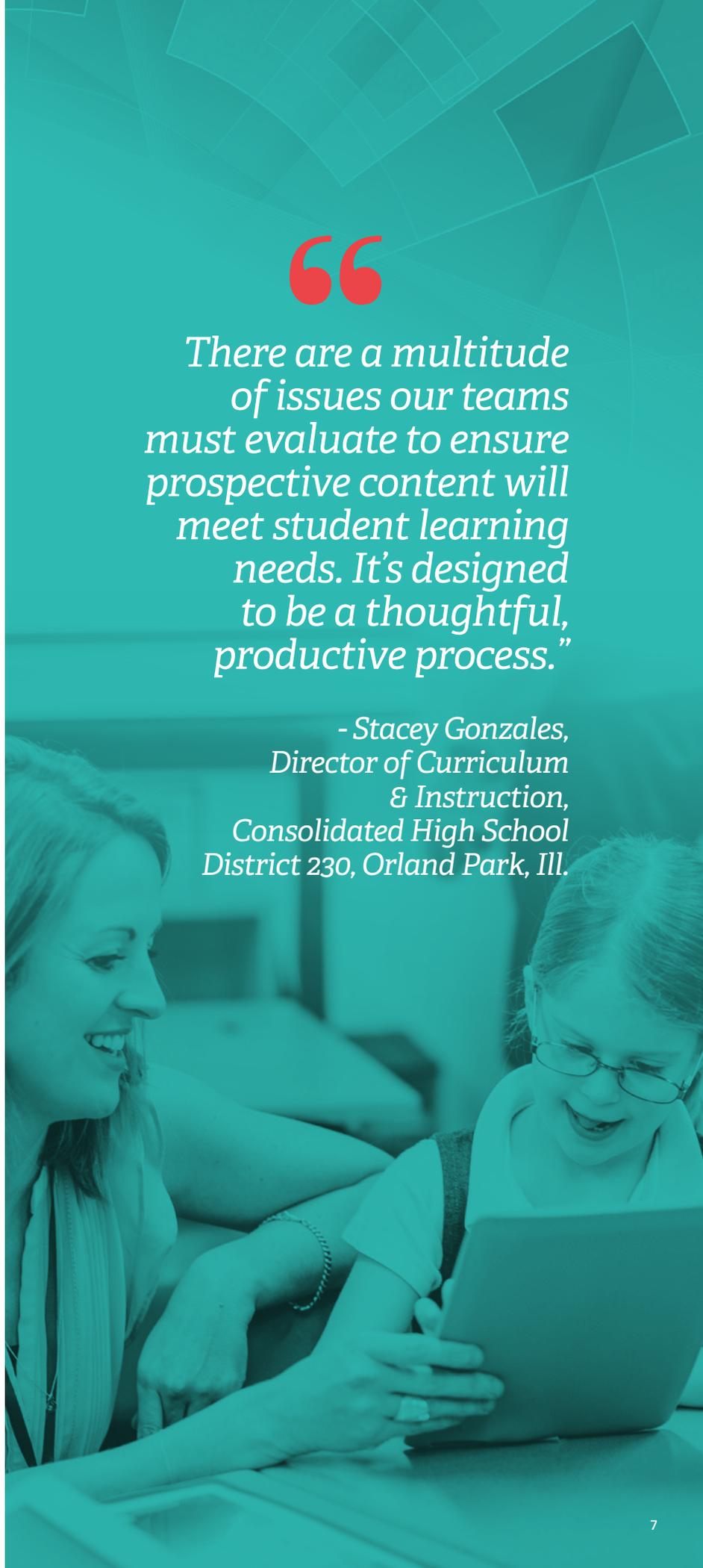
Free versions can also create issues when educators request the paid version outside of the CWT process. Because Gonzales is committed to rolling out new digital content equally across the district, getting all three high schools to buy in to the expanded edition of a piece of content or software has been problematic. Gonzales says she’ll only consider purchasing the paid version of content that educators have been using for free if the CWTs from all three schools can get behind the product.

“I don’t want one of our three schools getting something other schools can’t access,” she says. “At the end of the day, we need equity at all three schools to ensure the digital content we end up with is accessible to all of our students, not just those at the select school.”

“

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*- Stacey Gonzales,
Director of Curriculum
& Instruction,
Consolidated High School
District 230, Orland Park, Ill.*



The Backbone of Good Digital Content Plans

The practice of using digital content is moving past early adopters and becoming mainstream across public education. Key to this evolution: Choosing digital content strategies that work.

The International Society for Technology in Education (ISTE) addressed this in the latest refresh of the ISTE Standards for Students released in 2016, which highlight attributes such as empowered learner, digital citizen, knowledge constructor, innovative designer, computational thinker, creative communicator and global collaborator. ISTE will release the refreshed Standards for Educators at ISTE 2017 in San Antonio on June 25, 2017. Over 2,200 educators from across the globe contributed to defining standards under the two broad categories of empowered professional and learning catalyst. Educators see themselves as more deeply involved in all aspects of learning design and recognize that technology empowers them to do so. Educators agreed they should “use technology to create, adapt and personalize learning experiences” and “apply instructional design principles to create innovative learning environments.” In the coming months, ISTE will collect input from education leaders in the refresh of the ISTE Standards for Administrators, which will emphasize what is required to support educators and students in their aspirational but achievable goals. For more on the ISTE Standards, visit <https://www.iste.org/standards>.

Beyond these general standards, there are a handful of other winning strategies for incorporating digital content:

UDL

The Universal Design for Learning (UDL) is a framework for guiding educational practice that provides flexibility in the ways information is presented and reduces barriers in instruction. When applied to digital content, UDL guarantees

that districts commit to tools which benefit everyone. But UDL is not a panacea. While the framework is an important premise to consider, it is by no means the only consideration districts should make when pulling together strategies around digital content. UDL works best when used in combination with other approaches and digital content strategies.

Computational thinking

Solving problems using the power of computing is a vital skill in today’s digital age. Computational thinking (CT), which combines logic and the ability to formulate a problem that a computer can solve, is fast becoming a required skill that all students must possess.

For these reasons, it is an important, contemporary literacy for students — and not just for those who are likely to become software engineers. Even if students do not pursue computing in their careers, they will need to be familiar with the vocabulary and processes to effectively communicate with colleagues on technical issues and be knowledgeable about how computing works and affects their lives. Embracing CT is another way of leveraging digital content and technology to change the way we think about student learning.

SAMR

The Substitution Augmentation Modification Redefinition (SAMR) model, developed by Dr. Ruben Puentedura, essentially forces teachers and students to take a different approach to problem solving, either by substituting, augmenting, modifying or redefining one aspect of the learning experience with another. Baking the use of digital content into the process only strengthens the bond with technology.



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Takeaway #2

Leverage Partnerships

With limited resources, shrinking budgets and a need to align with distinct philosophies of teaching and learning, sometimes the best way to get the digital resources you want is to partner with a vendor or content creator to make it happen. This has been the strategy at Evergreen Public Schools in Vancouver, Wash.

In 2015, Evergreen distributed its own curated digital curricular resource for math at 21 elementary schools across the district. The teachers and specialists who curated the content utilized free OER — including content from an OER developer — linked to lessons and units of study. Although the solution worked at the

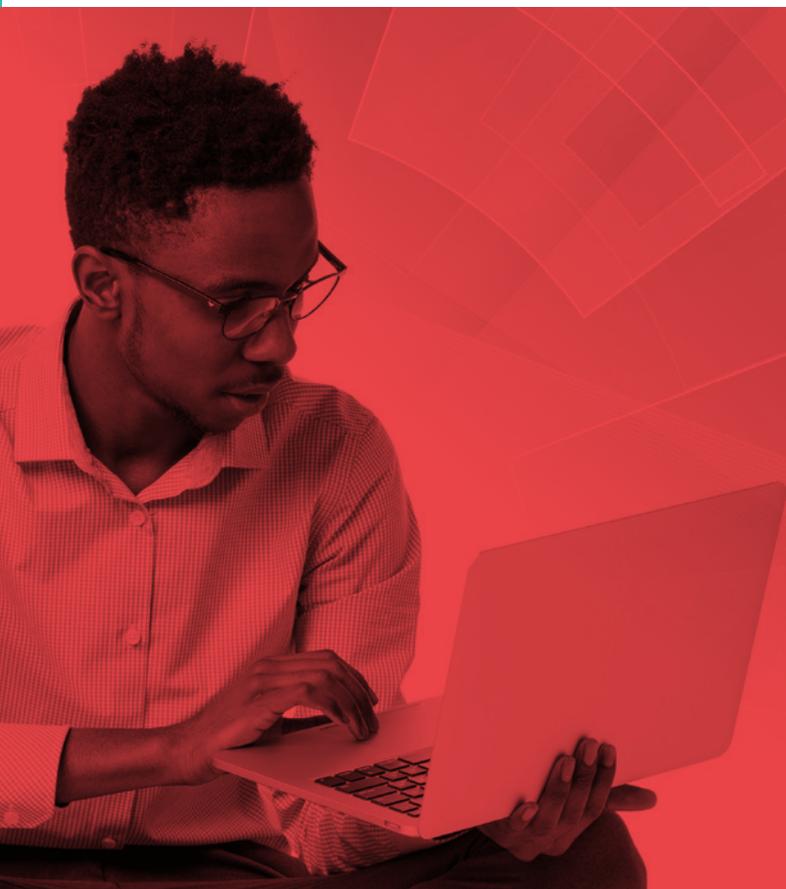
time, the teachers felt the digital content lacked an effective user interface — it was primarily a digitized teacher-facing resource rather than a tool for students.

“We had a growing number of people who felt like the content we had created needed an extra push,” says Assistant Superintendent Chris McMurray. “We knew there were other services out there approximating where we wanted to be in terms of pedagogy but we didn’t have the internal resources to get there.”

In January 2016, a conversation with representatives from the OER developer highlighted pedagogical strengths of the



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Assistant Superintendent,
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The district worked with an outside developer to translate its existing content into something that met teacher and student needs more efficiently and effectively.

Evergreen material, but also strengths of the OER developer in areas of user experience. As the partnership grew, the OER developer worked directly with the district on a plan to translate its existing content into something that met teacher and student needs more efficiently and effectively.

The resulting system takes the user interface to the next level. When a student logs in, the system offers links to teacher-directed and optional resources, as well as a help function. For teachers, the screen is split in two — the left side shows what kids see on their screens and the right side has the teacher instructional guide with notes, instructional videos and embedded links to professional development specific to the learning targets.

Additionally, the OER developer was able to verify the entire resource using common curriculum evaluation tools. It had to align with standards and philosophy, while supporting shifts in teaching and learning, and do so in an engaging, dynamic way.

To be clear, the cost associated with these upgrades is significant. The fee didn't include the OER — that was free. Instead, the district paid for the OER developer's professional services to help transform its old system into something usable and more dynamic. McMurray notes that he priced out the job hourly and determined it would be more cost effective to outsource the job to the OER developer than to hire someone to build the user interface in house. His math indicated that leaning on a partner

also leveraged their considerable technical experience, and saved money over what the district would have spent on textbooks.

“I think we're probably paying less than half of what we would have paid for a traditional paper resource, just given all the consumables,” he says. “An added benefit was that we knew we would come out of the gate with something that fits our needs and is customizable, flexible and nimble enough so we can change it and not overturn the apple cart.”

The partnership approach worked so well for Evergreen that the district effectively replicated the model at secondary schools with digital math curricular resources. With the follow-up project, instead of paying for development services, Evergreen paid for professional development — a series of webinars and trainings that educates Evergreen educators about how to use the content to drive math instruction.

The outcome is digital math curricular resources that align to the philosophy of learning in the district. The students enjoy them and teachers can easily design around them.

McMurray says the model has changed his thinking about digital content overall. “We've learned that paying for these types of resources is smart and more cost effective than doing it ourselves,” he says. “Knowing when and how partners can help is half the battle.”

Takeaway #3

Give Students a Voice

Often the best way to figure out what kind of digital content to create is to ask those who will use the content most. In the case of Fullerton School District in Fullerton, Calif., this meant a concerted effort to get a sense of what kinds of content resonated with students, how students were interacting with that content, and what sort of tweaks and improvements students would be willing to stomach.

The result: A new approach that incorporates a substructure more commonly found in video games.

Some might call the strategy “gamification,” but Jay McPhail, assistant superintendent of innovation and instructional support, prefers to think of iPersonalize.life — Fullerton’s take on digital content — as personalized blended learning with game-based methodology and quest-based structure.

“Calling it ‘gamified’ sells the approach short,” he says. “What we’ve put together has components of gaming but is rooted in serious education philosophy and instructional design.”

Earlier this decade, when Fullerton officials wanted to expand the district’s reliance on digital content, they surveyed students. The feedback from these surveys was explicit: Students said they were tired of copying information from textbooks and listening to lectures. They also said they wanted content that was relevant and engaging, as well as a chance to make a difference in their schools and communities.

McPhail says he and his colleagues identified that the vast majority of the K-8 district’s students liked to play video games. Fullerton officials asked students if they’d be open to learning through a digital content medium that looked and felt like a video game. Overwhelmingly, the answer was yes.

With this data, Fullerton officials created iPersonalize. The long-term goal of the project was to get kids in touch with the community. Short term, the goal was simple: make learning fun.

Students compete for badges and points, which they receive after completing certain tasks. They can also select avatars to represent them in the virtual environment. Fullerton technologists even created a leader board that displays points and avatars alike.

McPhail says that currently more than 8,000 students between fifth and eighth grades interact with the technology every year, and notes that as the project catches on, this number likely will increase. “What we have found is that with iPersonalize, students are doing a third more work in a third less time.”



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*- Jay McPhail,
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Fullerton School District*

Takeaway #4

Find a Reliable LMS



If you don't have a place to store your digital content, the data can become overwhelming pretty quickly.

One of the only downsides to digital content: If you don't have a place and a method to organize it, all the data can become overwhelming pretty quickly. Nobody knows this better than leaders at Lakota Local School District in Liberty Township, Ohio. Here, the district has dabbled in digital content for the better part of the last three years, and now the content the district has created in that time is delivered via its learning management system (LMS).

Marlon Styles, Lakota's executive director of curriculum and instruction, says the district views the LMS as the ultimate digital content

repository — an always-open storefront in which to posit the most valuable digital content the district offers. It's an approach that has paid huge dividends to the district and users alike.

"The diversity and agility of a good LMS allows you to do so many things if you're going to get in there and design courses or content for courses," Styles says. "It becomes the primary way to distribute content across the district, the key tool for collaboration and a clearinghouse of information that just makes everything easier."

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[The LMS] becomes the primary way to distribute content across the district, the key tool for collaboration and a clearinghouse of information that just makes everything easier.”

- Marlon Styles, Executive Director of Curriculum and Instruction, Lakota Local School District

In Lakota, the LMS has proven to be invaluable for supporting the Substitution Augmentation Modification Redefinition (SAMR) teaching model (see page 8 for more information on SAMR), which, at least at a high level, emphasizes what technology can do for teaching at the classroom level.

Perhaps the best example of how the LMS has benefited Lakota students is a new online government course. A team of educators created the class from scratch last year, and now it lives 100 percent online. As Styles explains it, the presence of a reliable LMS enabled district officials to digitize content and curriculum, increased teachers' ability to collaborate and provided students with a central point for learning. He adds that the LMS also left open the possibility of introducing modules and subsequent assessments into the design of coursework — features that make education more responsive.

In general, the key to acquiring a reliable LMS is asking yourself a series of questions about needs, wants and long-term goals. Some of the questions Lakota Local Schools asked during the process were: What do we need out of an LMS? What do we need an LMS to do? What experience do we want an LMS to provide in the classroom?

The next big question is implementation: How disruptive will it be to bring the LMS online and get it to run smoothly? No matter the brand, the process of rolling out an LMS could take the better part of a year.

During this time, it's important to focus on quality user training. Districts should welcome the opportunity to support early adopters at the classroom level and provide them with ongoing professional development and support to enhance their integration of the technology.

"We couldn't think of digital content without our LMS," says Styles. "It allows us to focus on what is important, and that is providing our students with modern learning opportunities."

Avoid These Common Misconceptions

Every student is different, which means each one will respond differently to digital content — just as every student responds differently to traditional print content. It's important to avoid thinking in platitudes and generalizations about students and the way they consume digital information overall. Here's a closer look at some of the biggest misconceptions about digital content, and some advice for how you can overcome them.

- ↘ **The transitive property is alive and well.** Just because a piece of content is worthwhile in physical form doesn't mean it's going to end up being equally worthwhile in digital form. It's important to take the time to evaluate every piece of digital content just as you would evaluate other content. In some cases, the best choice may be to acquire content from an entirely different source or publisher.
- ↘ **Free is better.** Free digital content — such as the stuff available through OER — is undeniably valuable. But this content isn't always superior to digital content that a district may have to pay to use. The reality is that paid content offers value, too — either because of the person who created it, or because of the interface. Sometimes the best strategy leverages both.
- ↘ **Educators know best.** Because teachers and district officials have spent generations making decisions on textbooks and other forms of content, they are accustomed to being in that position of power to determine curriculum for the year. In recent months, however, local school officials have embraced a push to let students drive decisions based on surveys that help determine the types of content they like. This strategy can satisfy a broader user base.
- ↘ **Specific is the goal.** Because students access content from a variety of devices in different learning environments, the best approach is to embrace content that is platform agnostic.
- ↘ **Digital is static.** By its very nature, digital content is always evolving. This means that unlike printed content, which is created once and often not touched for multiple years, digital content never is static. The best digital content programs embrace this wholeheartedly, baking in regular and repeated evaluations and reviews.



Takeaway #5

Pilot, Pilot, Pilot

You probably have heard the old saying, “Practice makes perfect.” This motto applies to everything from professional basketball to writing. It also pertains to digital content projects at schools across the country.

At least, so says Kahle Charles, executive director of curriculum at St. Vrain Valley Schools in Longmont, Colo.

“We want to create classrooms where students can be engaged and can be producers and critical thinkers while experiencing authentic situations through content,” says Charles. “Everything else is to make sure we hit that mark. But that kind of excellence takes time. And by that I mean significant, serious time.”

Specifically, the St. Vrain model for rolling out digital content comes in three phases. Phase 1 is all about selecting the content — identifying or creating a standards-based choice that satisfies requirements. Phase 3 is about building out a professional development program designed to teach teachers how to utilize the content to change pedagogy.

Phase 2, however, is arguably the most important part of the three, and it’s all about piloting the content to make sure it functions as advertised and delivers what’s needed.

Piloting at St. Vrain is serious business. Charles and his colleagues select at least one teacher from every school in the district to serve as the pilot crew. Charles always tries to make sure this squad includes at least one ESL teacher and one special education teacher as well. Once the team is selected, the group picks one piece of content to pilot, rolls it out and meets on a continual basis to discuss performance over time.

According to Charles, in the beginning the pilot crew meets maybe twice a month. As they build the process, the team might meet monthly. If the content under pilot is for elementary schools, the district will pilot by grade level; if it’s content for a secondary social studies class, the pilot team will comprise American and world history teachers.

St. Vrain has put together physical checklists for the evaluation teams — rubrics, if you will,



for the pilot crew to use to ensure the tool is worthwhile. One of the rubrics spotlights basic performance; another focuses on pedagogy and how the content might support the latest and greatest approach. A third rubric spotlights standards, and measures features against Common Core State Standards to make sure the content delivers what is required by law. St. Vrain pilot teams have another checklist they use for technical expectations. This fourth document evaluates whether a specific piece of content will work with the district's LMS, whether it can support single sign-on and the extent to which it will work with the district's student management system.

With all of these rubrics and meetings, the pilot phase for St. Vrain is a pretty big deal. It's also totally worth it.

"This process is everything," says Charles. "We feel we are so diligent and detailed with the process that by the time we're done with the pilot, we can say with confidence that the content will or will not work long term."



Conclusion

In today's Digital Age, digital content is king. For K-12 school districts, this means welcoming bits and bytes of information in new and exciting ways. It also means rethinking some of the most tried and true curriculum habits.

In short, it means accepting change. Over the course of this paper we have presented five key takeaways from interviews we recently conducted on the subject of embracing digital content.

Consider these case studies as anecdotes by which to live; hopefully the advice contained in each of them can serve as guides for making similar decisions in your respective districts.

Industry Partners:

Katie Gallagher, Director of Product Marketing, Blackboard

Rod Berger, PsyD, Soundtrap Ambassador, President and CEO, MindRocket Media Group

Blackboard

Blackboard's unique approach to K-12 education helps schools personalize learning, increase student engagement and achievement, boost teacher productivity and engage their entire community.



Soundtrap's collaborative online recording studio enables students at all grade levels, regardless of experience, skill level, or special needs, to creatively personalize learning. Working with Soundtrap helps students develop true 21st Century skills, including the 4Cs — critical thinking, communication, collaboration, and creativity — as they work together with peers to safely and securely produce unique podcasts and music creations in a COPPA- and FERPA-compliant environment.



The Center for Digital Education is a national research and advisory institute specializing in K-12 and higher education technology trends, policy and funding. The Center provides education and industry leaders with decision support and actionable insight to help effectively incorporate new technologies in the 21st century.

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