



WHITEPAPER

Digital Signage  
for  
K-12 Schools

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# CHAPTER 1

## Can Digital Signage Teach Digital Natives?

Digital signage isn't a new concept for K-12 schools. In lobbies, libraries and cafeterias, K-12 digital signage has been used to great effect to communicate with students and faculty. These digital signs are being widely used for announcements, navigational assistance and to relay critical emergency protocols.

This same technology can be used inside the classroom to engage digital natives. It is bridging the generation gap between students and teachers, and improving the educational experience for everyone involved.

In this first chapter of a three-blog series exploring the k-12 digital signage ecosystem, we'll explore the student vs. teacher dynamic, why this relationship is suffering, and why technology is the lubricant that'll reduce the friction between both worlds.

### 1.1. The “New School” vs “Old School”

Today's students aptly dubbed “digital natives,” grew up in a digital world of constant stimulation and instant gratification. The words “waiting patiently” aren't in their vocabulary and they consider sitting through relatively long and boring lectures a tedious chore.

Digital natives are used to being plugged in, perpetually connected. From television mobile, and video games to the Internet and social media, their entire existence is wrapped up in digital devices. [The numbers are overwhelming](#): digital natives have spent less than 5,000 hours of their lives reading but more than 20,000 hours playing video games and 10,000 hours watching television.

Where students of yesteryear were accustomed to sitting down with a good book, today's students are more at home online, in front of the television or playing video games. In order to truly reach these digital natives, educators must find a way to plug into their “network” and reach them on their own terms.

Unfortunately, not everyone is equipped to do so...

## 1.2. Old World Educators Not so “Old” Anymore

Today’s technology is constantly evolving, and while digital natives feel at home with the rapid-fire arrival of new digital platforms and media, earlier generations tend to lag behind. Where digital natives take an “out with the old, in with the new” approach to technology, educators aren’t as quick to abandon once-proven methods, even when they’ve proven to be outdated.

That being said, a growing number of educators are starting to embrace technological advances. [PEW Research Center](#) surveyed 2,462 Advanced Placement (AP) and National Writing Project (NWP) teachers, and found that:

- 94% own a cell phone
- 58% own a smartphone
- 93% own a laptop
- 87% own a desktop
- 39% own a tablet
- 78% use social networking sites

Despite this obvious engagement with technology, 42% of these teachers still feel that their students have a better understanding of digital tools than they do.


## 1.3. A Digitally Enhanced Generation Gap

While many educators have embraced the tools of the digital world, those tools are still somewhat foreign to them. They don’t have the inherent understanding of technology that has been bred into digital natives. They don’t quite speak the same language. Something is lost in the translation.

While teachers acknowledge the usefulness of digital tools, they don’t always use those tools to their advantage, and instead push forward with the tried-and-true methods that don’t always work. This creates a disconnect in the classroom. Interest wanes, engagement suffers and students ultimately tune out. No one wins.





Educators must learn to communicate in the language of the land. Only by integrating digital tools into the classroom  can educators create the level of excitement and engagement they desire from students.



## 1.4. Bridging the Gap

Today's students think and process information differently from their predecessors and so educational standards and teaching methods must evolve in order to really teach them. Just as older educators are apt to resist learning new technologies, digital natives are apt to rejecting old concepts and outdated ideas. Forcing students to devolve with outdated methods is a disservice to everyone.

Educators must learn to communicate in the language of the land. Only by integrating digital tools into the classroom can educators create the level of excitement and engagement they desire from students.

It's important to keep in mind that what needs to change for today's students is not the content or material being taught, but the delivery and presentation of the information. Today's student won't abide plodding, step-by-step tutorials and long-winded lectures. Their world moves fast and they can handle information in greater quantities and at greater speeds. It's what they expect, and it's what keeps them engaged.

So the challenge for educators - and the key to bridging this ever-growing generation gap - is to find a way to adapt and repurpose essential educational content so that it can be communicated in the language of the digital native. [Digital signage for education](#) provides the solution.

## 1.5. K-12 Digital Signage Makes the Transition Easy

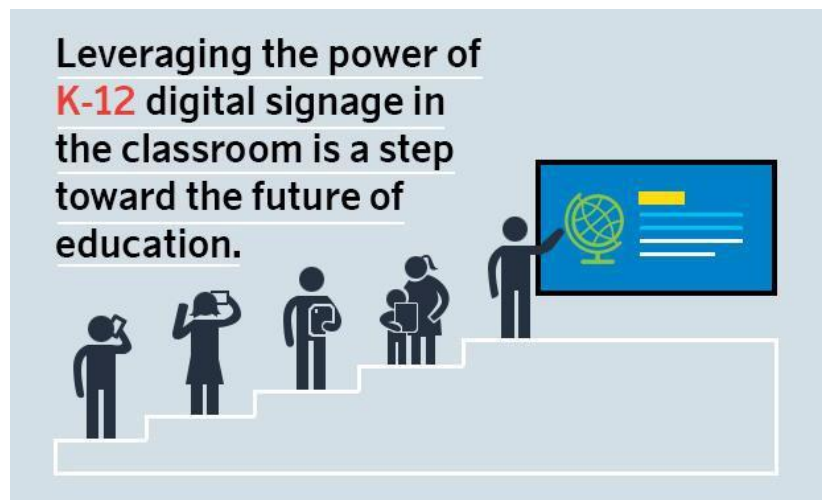
K-12 digital signage rolls technologies of computers, projectors and interactive whiteboards into one compact, easy-to-use system. It provides a level of versatility unseen with previous technologies. For example, digital signage can be used to:

- Show educational programming in the classroom
- Show and compare classroom assignments
- Provide critical information, such as quiz announcements and upcoming due dates
- Enhance previously mundane presentations with visual content, such as animations or video
- Source web content through [digital signage apps and content widgets](#)
- Engage in virtual field trips

Chapter 2 will discuss the classroom uses for K-12 digital signage in more detail, but the key takeaway here is that digital signage enables educators to provide students with visual, auditory and kinesthetic stimulation. In other words, K-12 digital signage allows teachers to communicate with students in their native language -- digital.

## 1.6. A Step Towards the Future

The [advantages of using digital signage in schools](#) are numerous. It's a reliable, scalable technology that actually resonates with students. It provides an easy-to-use means of connecting older educators to their much more digitally adept students. With K-12 digital signage in the classroom, educators and students can speak the same language.



# CHAPTER 2

## Digital Signage in K-12 Classrooms

In chapter 1, the student-teacher dynamic -- how each relates to today's technology -- was discussed. Chapter two of this series looks at how digital signage is quickly becoming a preferred and sought after tool for educating grades K-12.

### 2.1. Why K-12 Digital Signage Works in the Classroom

The days of wall-to-wall encyclopedias and 20-pound dictionaries are long gone. The students of today are used to having information at their fingertips 24/7. They don't see technology as a challenge. They've grown up with it, and -- if given the choice -- they'd prefer to use it more often.

Case in point, the [2015 Pearson Student Mobile Device Survey](#) found that most students, grades 4-12, would like to increase the usage of mobile devices in the classroom. This included 72% of elementary school students, 66% of middle school students and 54% of high school students.

With the excitement for classroom technology increasing with each new generation of students, educators must adapt in order to provide proper stimulation. K-12 digital signage networks provide the perfect solution.

### 2.2. What K-12 Digital Signage Can Do

First and foremost, K-12 digital signage refocuses and reenergizes the student body.

Take the [Eloy Elementary School District](#) in Arizona, for example, set in a farming community where the majority of the population lives below the poverty level. Due to lack of funding, their classroom technology had become outdated. Student engagement was suffering, as was attendance.

## Digital Signage can be used inside K-12 classrooms to:



Enhance class presentations by adding animations and videos



Give students on-screen recognition for a job well done



Encourage collaborative learning by using live tools like Google Docs



Eliminate printing and photocopying which saves money



Enable students to take virtual road trips

Thanks to a federal School Improvement Grant, Eloy was able to roll out integrated classroom technology to 350 students spanning grades 4-6. According to Eloy Intermediate Technology Coach Kevin Ourseler, student attendance and engagement skyrocketed after the addition of digital signage to the classroom, with nearly 100 percent student attendance daily. Why are students – and teachers – so enthusiastic about K-12 digital signage?

For students, K-12 digital signage provides an engaging and entirely interactive experience. It's basically the "gamification" of learning – a perfect blend of stimulating content, fun and collaboration. For teachers, the benefits are many.

- Screen sharing makes for efficient student/teacher collaboration, and collaboration is no longer dependent on student/teacher location (great for a crowded classroom, great for distance learning).
- Presentations can be enhanced using animated text and images and/or web-sourced content, such as high quality video.
- Connection to interactive whiteboard makes for perfect group assignments and discussion, including interactive on-screen demonstration and collaboration.
- Collaborative learning modules not only provide an interactive experience for the student, but real-time feedback for the teacher. Students can ask questions, and teachers can look in on students anonymously to gauge understanding and adjust the lesson plan or provide individual attention as needed.
- Student screens can be monitored and controlled as needed to help maintain focus and classroom control.
- Teachers can give students on-screen recognition for a job well done, providing students with an incentive to excel.
- The need for printing and photocopying are all but eliminated, saving educators substantial time and money.
- Educators and administrators can control K-12 digital signage network from a single location or via remote.
- Teaching resources and district policies are accessible at the click of a button and can be created, edited, distributed, maintained and managed as needed.



- English Language Learners (ELL) can benefit from translation features.
- Thanks to distance learning capabilities, virtual field trips are a viable option, even when funds for travel aren't available.

## 2.3. K-12 Digital Signage in Action:

### 2.3.1. Geeter Middle School

[Geeter Middle School](#) in Memphis, Tennessee, wanted to encourage student engagement and improve academic performance. They chose to implement K-12 digital signage in their sixth grade math class.

"Geeter has historically underperformed academically," according to Cleon L. Franklin of the Office of Instructional Technology for Memphis City Schools. "They don't ask questions in class because they are worried about how they will be perceived by their friends...because it isn't considered 'cool' to learn."

K-12 digital signage eliminated that stigma, making learning fun and cool again.

"I walked into a classroom where children had severe issues the year before, and now they were genuinely excited about learning math," said Franklin

### 2.3.2. Rialto Unified School District

Board of Education clerk Joseph Martinez noticed that students were most engaged when interacting directly with technology.

"Rialto was about 20-25 years behind the times technology wise," Martinez said. "My idea was to get video and use video throughout our campuses."

Martinez wanted to use videoconferencing and digital signage to transform K-12 education. The idea was to give Rialto students the tools needed to take virtual field trips, connect with other students, and learn about a diverse range of cultures.

Digital signage displays and media players were added to 72 classrooms. To date, students have interacted virtually with students in San Diego and visited NASA and the Great Barrier Reef.

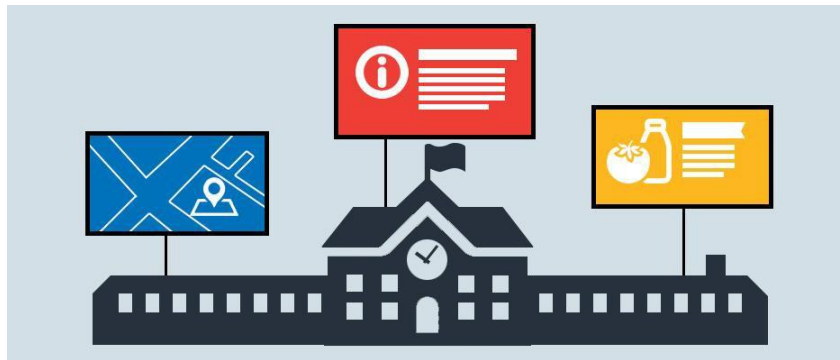
"Students aren't poking each other. They're not passing notes. They're engaged. They're focused on what's on the screen," Martinez said. "They're trying to reap the most out of their time with it. It's wonderful to see."



## 2.4. Why K-12 Digital Signage Is Worth the Investment

According to the [Center for Digital Education](#), nearly two-thirds of K-12 district leaders feel creating an integrated digital learning environment is a top priority. [Pew Research Center](#) found that AP teachers actually enjoy incorporating technology into their classrooms, provided it enhances the learning experience.

K-12 digital signage meets both of these criteria, and the technology is scalable. Networks can be customized with the budgets of small- and mid-sized institutions in mind, and there are a number of federal and local government programs, funds and grants available.



Perhaps Memphis City Schools Superintendent Kriner Cash said it best: "Technology and innovation are at the core of the ever-changing world of education. Academic success is our top priority, and incorporating technology into academics better prepares our students for the world outside school walls."

Chapter 3 will discuss how digital signage is also being used outside of the classroom.

# CHAPTER 3

## Examples of Digital Signage for K-12

In Chapter 1 and Chapter 2, we discussed the validity of digital signage for K-12 as an educational tool and how it could be used in the classroom.

In Chapter 3, we'll look at how K-12 digital signage is being used outside the classroom:

### 3.1. Real-world Examples of Digital Signage for K-12 Schools

#### 3.1.1. Valley Christian High School (Arizona)

Arizona's top Christian high school, [Valley Christian High School \(VCHS\)](#), recently launched a one-to-one technology program that goes beyond simply providing students with an iPad. The program, which included digital signage implementation, is changing the way faculty instruct and the way students learn, collaborate and engage with their peers and faculty.

The school is using digital signage for K-12 inside and outside classrooms. In the class, the screens show educational programming and enhance previously mundane presentations with visual content, such as animations or video.

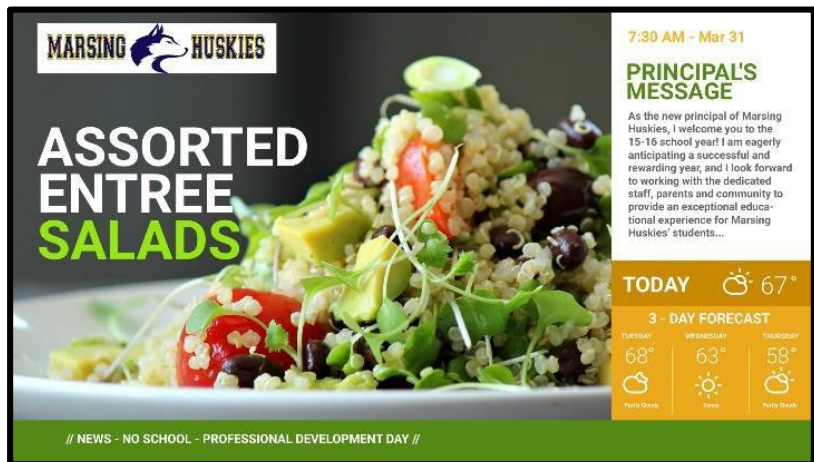


Outside the classroom, K-12 digital signage is de-cluttering VCHS' hallways by getting rid of bulletin boards and posters. It is enabling school admins to display multiple messages at the same time. The screens can give equal publicity to the school's community service project, upcoming football game and PTO meetings.

### 3.1.2. Marsing School District (Idaho)

Idaho’s [Marsing School District](#), has a strong commitment to creating healthier school environments through promotion of nutrition and physical activity. Their mission? To educate all students to lead productive, satisfying and responsible lives, now and in the future.

Marsing School District participated in the HealthierUS School Challenge, part of the First Lady’s Let’s Move! campaign, and were awarded the silver medal.



As part of their commitment to raise a healthier generation of kids, the school district installed digital menu boards in the cafeteria. They’re leveraging the vibrant simulations and imagery in K-12 digital signage to draw the students’ attention to their messages about healthy food choices.

Displaying nutritional facts like calories, fat grams and protein makes students aware of their dietary intake. This improves the kids’ participation in healthier choices while decreasing waste. Healthy food entrees are also being promoted on the screens. Highlighting these options using bold colors, video and imagery motivates students to pick healthy options over pizzas or burgers.

### 3.1.3. Capital School District(Delaware)

In Chapter 1, we discussed how school going kids - digital natives - respond better to digital imagery and graphics over text. [Capital School District](#) wanted a communications solution that would incorporate these media in their messaging, in order to draw and keep the attention of students.

Digital signage proved to be effective in cutting through the paper clutter, and getting through to their tech-savvy students. The digital signs in the school display announcements, school news such as athletic achievements, events such as awards ceremonies, and building directories.

The displays quickly became information hubs, one of the few places students could look to for quick access to up-to-date information.

Digital signage for K-12 also proved to be cost-effective for Capital School District. Budgets are tightening so schools are looking to invest in solutions with a dual purpose. Digital signage gave the district a lot of digital real estate. Administrators can display multiple messages on the same screen at the same time.



The district can also use multiple screens in the same digital signage network for different purposes. Screens in the cafeteria are being used as menu boards, screens in lobby are being used as [building directories](#) and for [wayfinding](#), and screens in the hallways are being used as announcement boards. In the event of an emergency, all the screens automatically display emergency alerts and safety instructions.

With students who are interested in what's vibrant and dynamic, K-12 digital signage in Capital School District is continuing to provide a critical link between administrators and the student body and faculty.

### 3.1.4. Fremont School District (Michigan)

In late 2012, [Fremont School District](#), serving two high schools, one middle school and two elementary schools, was going through some major updates. With the addition of a new high school, they were looking for technologies that would improve operational efficiency, especially in the cafeterias.

They replaced the static menus in the cafeteria with digital signage for K-12 to improve the flow of traffic during lunch.

The school started seeing the ROO of K-12 digital signage in just 6 months.

Both staff and students noticed and appreciated the benefits of the digital signs in the cafeteria. The [digital menu boards](#) clearly displayed food choices and nutritional information, as well as the station each meal was being served at. Lines moved faster and students had more time to eat.



The digital signage solution also improved operational efficiency. During the pilot, the district uploaded a 40-day lunch menu rotation in under an hour. And when they needed to make changes in the menu to reflect available inventory, all it took was a few clicks.

Digital signage for K-12 gave the school district more menu flexibility, improved lunchtime traffic, and gave the new high school a sharper look.

The district plans to add a student notification and [emergency messaging](#) system to the digital signage network. The new system will allow faster and efficient communication among teachers, staff and students with improved engagement.

### 3.2. Digital Signage for K-12: A Viable Solution

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This whitepaper looked at the validity of K-12 digital signage as a multipurpose education tool both in and outside the classroom.

Not only has digital signage proven to excel in both of these settings, but it also works to bridge the generation gap between today's students and their sometimes less tech-savvy educators.

For all involved, K-12 digital signage is a win-win.

To learn about Mvix digital signage solutions: [www.mvixdigitalsignage.com](http://www.mvixdigitalsignage.com) or



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#### About Mvix:

*Founded in 2005, Mvix is the market leader in HD digital signage software and hardware systems, multi-screen video wall solutions, interactive digital kiosk systems, and content management systems (CMS). The company provides turnkey solutions to varied industry verticals including foodservice, hospitality, corporate offices, healthcare, real estate, and manufacturing among others. Mvix comprises a team of hardware and software engineers and AV experts who build and support digital solutions for commercial clients across the globe.*

*Since its inception, Mvix's commitment to delivering innovative solutions has put the company at the forefront of the digital signage and digital entertainment industries. In 2012, the company was honored on the prestigious Inc. 5000 List of Fastest Growing Companies in America and in 2015 it was ranked as one of top 20 most promising media and entertainment technology solution providers. Read more about Mvix Digital Signage Systems: <http://www.mvixdigitalsignage.com>*