## SAMSUNG

#### Position Paper

# **Digital Signage in Education**

How digital signage is helping schools create better connections

#### Born And Raised Digital

Display technology is enabling students of all ages to become "digital natives."<sup>1</sup> It's not only become second nature, but has arguably become an essential element to transform lobbies, hallways and common areas of learning to help students feel more engaged.

The use of digital signage technology is the latest in a series of technological advances that is enabling an entire generation to stay connected to learning environments. Display technology proves to be far more interesting and effective than communicating with students over a muffled classroom PA speaker, droning through morning announcements. It's giving educators the ability to communicate with greater intention, using big, bold, ever-present messaging.

In this paper, we take a look at why digital signage is a natural and necessary fit in classrooms, and how the technology is being adopted and used everywhere from K-6 schools to state and private universities.

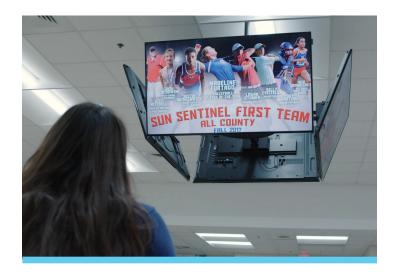
#### What Is Digital Signage?

Digital signage is vivid, high-definition flat screen technology that is used to inform, guide, advise and update a viewer, positioned strategically outside of formal classrooms. Digital displays are different than interactive display technology often found inside classrooms, which are used for teaching and collaboration.

Where is digital signage being utilized in learning environments these days? Wherever students and staff gather, both inside and outside buildings. These settings range from small displays outside of classroom doors to single displays in hallways, tiled arrays of menu-board screens in food service areas and even large LED video walls in colleges and universities.

The digital native generation is entirely accustomed to using and referencing screens in just about every aspect of learning. They're visual learners, want and expect instant access to information, and operate with the assumption that when information changes, it just happens. Waiting for things like a new printing run for posters or publications just seems odd.

Digital natives are also not intimidated by technology and rapid



change, and in most respects, embrace it. For them, digital signage is a natural part of their landscape, and how messaging is done.

#### How Digital Signage Is Being Used In Education

While there's no standard approach for using digital signage in education, here are the most common applications:

**Centralized campus messaging:** Screens get important messaging in front of students wherever they gather and go. They can be omnipresent and don't require students to do anything other than look.

Start-of-day public address announcements are being supplemented or supplanted by vivid screens that disseminate important information in front of students and staff throughout the entire day. They remind students about upcoming test days, recruit volunteers for community activities, and note changes in extracurricular activities and more. A prominent display functions as a positive reminder of where students and staff can go at a moment's notice for timely news and information.

**Recognition and celebration:** Ever-present screens help level the field for everyone making an effort in a school. Major sports teams get rallies and posters, while groups like the chess team, fencing team and debate society operate get little notice. Using digital signage, every accomplishment – no matter the group's profile – gets noticed.

**Food service:** Many schools are following the lead of for-profit restaurant operators by converting their old analog menus to digital signage – something that streamlines their operations and improves the experience for diners. When menu items change, by time of day or week, reflecting those changes on screens is easy or, when paired with other systems, can be automated.

**Guidance:** On university campuses, just finding your way around can be a daunting challenge for first-year or part-time students. Screens now include wayfinding signs, maps and directories to point the way. Increasingly, these signs also enable students and visitors to find directions on a big screen and then download walking directions to their smartphones.

**Safety:** Emergency messaging is a necessary part of campus life, from reaching staff and senior students all the way to the youngest learners. Most digital signage content management platforms now have tools and data connectors that enable administrators and security personnel to circulate rapid-response updates and automated messages alike to digital screens. That includes instructions about parking information and school closings during inclement weather, guiding students and staff out of buildings during fire drills and more.

**Learning:** In classrooms, displays serve multiple purposes. Interactive displays – or eboards – can run in passive mode playing school messaging, but in active classes are powerful learning and collaboration tools. With an interactive display, teachers and students can easily view, mark up, draw over, save and share ideas, planning and brainstorming sessions.

#### Why Digital Signage?

Schools often work from limited budgets. So the same disciplines applied in the private sector are used to rationalize making the investment in screens, players and software that are central to digital signage projects.

In short, capital investments need some sort of return on the dollars spent. Here are the conventional business cases to consider:

**Speed:** Whatever the message may be, it can be seen on these displays in a matter of minutes using predesigned templates and web-based operator tools. When linked to available, reliable data, preformatted messages can even be automated. Set up the right way and coordinated internally, an entire school district

or state university system can instantaneously push a message wherever needed.

**Cost:** Going paperless is a major cost savings for schools compared to cost of utilizing digital signage, chipping away at or completely eliminating the time and costs spent to develop, print, distribute, put up and take down things like paper signage. There's more time involved when plans get missed,

with posters up longer than intended and office staff dealing with the effects of inaccurate information.

#### Digital Signage In Action

Here are some interesting ways educational institutions are using digital signage:

• In Florida, The King's Academy near West Palm Beach, Florida has put smart displays across its K-12 campus,<sup>2</sup> as a way to improve communications and drive school spirit among student and faculty. A large lobby screen at the main school building is aimed at welcoming visitors — most notably parents assessing the value of private education for their kids. The school has digital screens in hallways, break areas, food service areas and even backstage in its performing arts facilities, which help actors, musicians and stagehands pull off seamless productions.

• The famed University of Texas Longhorns football team has made digital signage central to renovations in its training facility,<sup>3</sup> using video walls and incorporating smart displays at locker room stalls as a perk to team members but also as a key attraction for high school students being recruited to play for the school after graduation. Screens atop lockers show the photos, stats and even video highlights of top prospects, helping the young envision themselves as Longhorn players.

• Universities are increasingly using digital signage to guide students to lecture halls and to rooms that can change day to day and week to week. What's on the screens is directly tied to calendar and room assignment systems, so when changes are made in the system, those changes also find their way to directory screens outside each classroom and lecture hall. Students know who has the room, when and for what, in much the same way the corporate world has adopted digital door signs to minimize meeting room conflicts and chaos.

• Direct view LED displays are also being used increasingly by universities, including large format LED videowalls in lobbies of donor-endowed buildings to recognize and thank benefactors and celebrate achievements, like medical research advances. Those big screens are also being used in student common areas as giant screens and backdrops for public lectures and concerts, and to do everything from running movie nights to offering giant displays for playing video games.

#### Hardware

When selecting displays for digital signage consider reliability and operating implications. The digital signage industry is in the midst of a shift away from using displays that require an external PC or media player to smart displays with System on Chip (Soc) embedded media players inside for built-in playback capability.

The benefits of smart displays are simple:

Lower Hardware Costs: Smart displays eliminate the hardware cost and complexity of an external media player and its related cables and mounting accessories.

Easy to Install: Using Smart displays simplifies and streamlines

installations by consolidating everything needed for a digital signage network inside the display, requiring just a single power cable connected in the rear and a Wi-Fi connection.
East to Maintain: By removing excess cabling and hardware there are fewer points of potential hardware failure.
Lower Power Consumption: Without the need to power external devices consider power savings be achieved with Smart displays.

#### **Content Management**

There are scores of software companies with content management systems that could readily be used for digital signage purposes, and a variety of options for display and playback hardware.

Making the right choice owes a lot to proper planning and setting objectives. What a school or university needs, and how it already operates, should help inform technology selection. There are software and solutions companies specifically focused on the education sector. Their viewer experience and tools will often be tuned to the language and needs of educators, whereas other software platforms may be more generic, designed to suit everything from a nail salon to a paper mill.

#### **Getting Started**

Digital screens are increasingly common to better communicate to students, staff and parents.

**1. Read:** A quick online search will lead to useful, non-partisan advice.

**2. Observe:** Visit some campuses to see what others are doing, but go with a skeptical point of view. Just because a school does things one way does not mean it's the right way, generally, or for your school.

**3. Establish and Answer the 5 Ws — Why, What, When, Where and Who:** The Why question is the big one to nail down, but this process of posing and answering basic questions nicely enforces some discipline on your planning and thinking.

Get the facts. Know what to look for in the best technology when assessing budget. You'll have the answers to the hard questions that are between you and a green-lighted project.

Learn more about Digital Signage in Education.

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### Footnotes

- $1.\ https://medium.com/digital-reflections/digital-natives-and-digital-immigrants-how-are-they-different-e849b0a8a1d3$
- 2. https://insights.samsung.com/2018/06/25/digital-signage-displays-enhance-communication-at-the-kings-academy-in-florida/
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