



How to Use Digital Signage Infrastructure for Campus Emergency Mass Notifications

Informational and wayfinding signage can double as a built-in mass notification network during emergencies.

During a campus emergency, time is of the essence. Communication during a crisis needs to be fast and accurate so that people can react quickly and appropriately. While the advent of text message alerts has increased the ability to reach individuals directly, texts and traditional audio announcements don't allow for any visual components in mass communications.

Unlike text messages and emails – which can take several minutes to show up on a device, and require someone to be checking their phone regularly and/or have the sound turned on – emergency alerts on digital signage appear within seconds. Additionally, our brains process graphics faster than text, and motion catches the eye, so bright messages with moving HD graphics reach more people faster.

And because the content of all digital displays across a campus can be controlled remotely from a single Internet-enabled device, emergency evacuations can be handled in a swift and tactical fashion. Ideally, a digital signage notification system would integrate fully with the audio and text message components, so that messages and updates are consistent and cast the widest net possible.

While security is not always its primary use on a campus, digital signage's versatility can service a wide variety of needs. Using it as a central element in emergency communications is another step toward ensuring a solid return on a school, university or healthcare facility's investment.

Why You Should Use Existing Infrastructure for Emergency Alerts

By design, campus administrators install eye-catching direct-view LED screens with crisp, bright visuals in the most heavily trafficked locations all across campus, such as touchscreen directories in classroom buildings, conference room collaboration boards, and digital displays in libraries, cafeterias, waiting rooms and other buildings.

This informational and wayfinding signage doubles as a built-in mass notification network during emergencies. Digital signage alert systems allow institutions of higher education to maintain regulatory compliance with the Clery Act, which requires colleges provide students and employees with a notification upon confirmation of a significant emergency, incident or crime impacting the campus community and/or surrounding area. Federation for Internet Alerts data also can be implemented into signage systems, which gives schools, universities and hospitals real-time data in a matter of seconds. Weather alerts and Amber Alerts hit screens to immediately notify the entire audience, which is crucial for campuses.

With this public-facing technology, campus officials are also able to inform those who opt-out of any direct-to-individual messages, like texts and emails. And unlike audio announcements, the visuals also allow hearing-impaired individuals to receive the information in the moment. Most modern commercial displays also have the ability

to add on additional computing power, such as a Raspberry Pi unit, which can support more visual, attention-grabbing messages.

The beauty of using modern display technology for emergency alerts is that administrators are no longer limited to sending one text-based message to an entire campus. With some strategic forethought and planning, digital signage can deliver specific, unique information based on the location of the display.

Deliver Unique Geo-Specific Messages

Ideally, digital signage solutions across campus are cloud-based and can be accessed from any Internet-connected device, so administrators are not tied to a specific location when sending alerts and providing real-time updates to an entire campus. The system will thus need to include a powerful network management platform to manage and deliver content that can be overridden in the event of an emergency.

Using a cloud-based network, officials can send geo-specific messages to digital displays across campus, with different messages based on the type and location of the incident as well as the location of the display. For these examples, we'll imagine a tornado is approaching campus around midday.

Campus food court: Often, modern campus dining halls are reminiscent of mall food courts: a plethora of delectable options at different stations, each with multiple 4K digital displays aligned horizontally to show menus and mouthwatering images of the day's special. Large HD displays surround diners on walls outside the food court leading to an attached building – which, on a normal day, show information about campus events, announcements, photos, and more. However, these two types of displays play different roles in an emergency.

The campus community hears a tornado siren and starts trying to figure out where to go. Using the cloud-based network, campus personnel execute pre-planned programs to send tailored messages to the displays around the food court and play a sound. The menu displays switch to a color background that starkly contrasts with its surroundings and displays a series of messages and graphics – including text explaining the incoming weather with a flashing graphic of a tornado, followed by instructions and a large map to direct pedestrians to the nearest safe spots.

The displays surrounding the dining area and adjacent building then simultaneously serve as wayfinding guides, leading students and employees to safe areas in an orderly fashion.

Library: Libraries are tech hubs on college campuses. Not only do they house commercial displays showing announcements and events, but there are also hundreds of computer monitors for students to work on, as well as breakout rooms with collaboration

technology and touchscreen directories at the front doors.

When the tornado sirens go off, students, faculty and staff members in the library hear audio messaging – typically a sound followed by a voice giving instructions – and both the displays on the walls and the library computers display emergency messages and video instructions (although the monitors would not be entirely overridden, to save valuable work). Touch displays that normally present an interactive library directory can act as an information center or communication device. Individuals working in solitude in the less-trafficked “stacks” are alerted via an emergency sound; displays direct them to the common area, or show instructions specific to their floor – where to go, whether or not to take the stairs, or even to stay put if they are on the lower floors.

Student health centers and hospitals: Displays in health facilities typically include wait times and informational monitors. In a campus-wide emergency, the versatility of these monitors becomes crucial. If there are injured or sick people piling in, the instructions for pedestrians entering the building need to be clear and accurate. The displays around the waiting room should clarify what's going on, with as much visual information as possible.

During the tornado, the facility would first receive and display the messages to get to safety. However, after the event, the communications become more strategic. Waiting room screens should shift gears to provide specific directions for those who have been injured.

Similarly tailored messaging also can be sent to displays in residence halls and student unions, and even to the outdoor signage scattered throughout campus and stadiums. Following an emergency, the signage should then shift to providing information to victims on who to contact or where to go, as well as where folks can donate items for those in need. Digital signage is ideal for disseminating this information throughout campus, providing a helpful resource to a shaken community.

The key is that each display's strengths are employed to complement additional emergency communications; in the above example, the cafeteria's menu boards are used to display the most important information because they are above eye level and easier to read in a crowd. They're also larger and able to host more information. Similarly, the consistent layout of wall signage throughout campus makes these displays ideal for wayfinding and disseminating general information.

A general best practice is that the emergency message should always look the same and appear in the same place on the screen, regardless of where each screen is physically located. Because the screens are primarily used for non-emergency messaging, it is

important to always keep that content fresh. Before an emergency ever happens, campus officials can encourage people to engage with the displays by posting ever-changing, interesting content, so students and employees develop a habit of looking at them; then, in an emergency, they'll naturally look to the bright, eye-catching displays for information.

Making Action Plans Smarter through Analytics

Modern display technology can also help inform emergency communication protocols through analytics. Vendor-provided programs can provide new, interesting information for administrators and disaster planners. Discrete cameras gather non-identifying information about those who engage with the signage and gather valuable analytics that campus officials can use to see which displays receive the most engagement. This is useful for determining what messages are effective day-to-day by tracking data like impressions and engagement time, but in emergencies, this information becomes even more important.

Through this type of platform, administrators can learn which areas have the highest foot traffic and at what times throughout the day, as well as advanced, non-identifying data analytics about the demographics of the individuals. This information can be cross-referenced with existing data like class schedules to allow officers and personnel to make data-driven decisions while responding to emergencies.

For example, if an incident occurs near an area that normally sees heavy student traffic at that hour of the day, administrators would be able to consider this as they move quickly to form evacuation plans. It's important to determine who will be in charge of creating

and pushing out content, and the various levels of access and approval each person has.

Through careful, data-backed planning, college and hospital administrators can implement a robust emergency communications plan that uses an integrated approach, with digital signage at the core in order to enable a quick and orderly response.

No disaster or emergency affects everyone the same, and the versatility of a digital signage notification system counters the chaos that comes with crises. It takes time to design a plan with all of the bases covered. But, once it's done, the "set-it-and-forget-it" nature of digital signage allows campus personnel to focus on helping students and faculty get to safety, rather than the notifications in the moment.

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