Everything You Need to Know About Kiosks and Digital Signage

MERIDIAN
CONCEPT TO COMPLETION

Everything You Need to Know About Kiosks and Digital Signage

Self-service solutions have introduced a new way to provide audiences with engaging information. From retail to healthcare, numerous industries are starting to leverage the many benefits of kiosks and digital signage.

Primarily, companies are opting for self-service solutions because of the long term ROI opportunities they offer. Kiosks and Digital signage are more flexible, allowing businesses and organizations to make adjustments without incurring major printing costs, tailor messaging to suit an audience and deploy new content quickly and easily.

The innovative solutions provide analytics, accessibility, organization, security and help connect consumers with interactive, digital information.

Understanding what makes a self-service solution successful is an important step when considering kiosks and digital signage. From the software to hardware, industry to use case, and investment to ROI, we've outlined the information needed to take the leap into self-service solutions.

Industry and Use Cases

Interactive kiosks and digital signage have introduced a new way to provide audiences with engaging information. From retail to healthcare, numerous industries are starting to leverage the many pros of self-service solutions. The benefits of these solutions are not limited to one specific vertical, but can be leveraged by businesses and organizations in nearly any industry. Travel and tourism organizations are beginning to use live, interactive information to encourage travelers to explore their destination, retail kiosks are changing the way customers engage with brands and government departments are leveraging the advances in technology to make services more convenient, accurate and efficient. "The possibilities for these solutions are endless," said Gilder. "We're continuously impressed by the innovation of our clients and the industries they serve."

> "The possibilities for these solutions are endless. We're continuously impressed by the innovation of our clients and the industries they serve.."
>
> **— Chris Gilder, CEO and founder, Meridian**

Organization

Self-service solutions help organize by administrating tasks more efficiently and accurately. Kiosks streamline processes, increase productivity and extend hours of operation.

Payment

Bill payment capabilities allow employees to focus on servicing customers while self-service solutions complete transactions.

Accessibility

Manufacturers can design and build self service solutions to be ADA compliant. Multi-language support helps businesses and organizations interact accurately with individuals from many different regions of the world.

Security

Kiosks provide system performance management, system security and a wide range of component support to protect user information. The security features control how the kiosk is authorizing, collecting and storing personal identifiable data.

Connect

Providing WiFi increases property value and creates connectivity throughout the area.

Analytics

Collecting analytics is a great way to measure ROI and the effectiveness of content. Self service solutions can be used to gather data and learn more about users. The knowledge gained from analytics can then be leveraged to tailor content for users and increase ROI.

Wayfinding

Kiosks and digital signage can be leveraged as a wayfinding solution to guide users. Businesses and organizations can use the wayfinding capabilities to improve productivity of customer-facing staff and enhance customer service.

Advertising

Kiosks and digital signage provide convenient and engaging access to consumers. Digital advertising offers the ability to load ad content in multiple formats such as video, photo, text and audio.

Order Entry

Businesses can leverage kiosks for self-service order entry. Kiosks allow employees to reallocate the time previously spent on taking orders and provides more efficient and accurate service while reducing transaction costs.

Promotion

Kiosks and digital signage enhance customer loyalty with targeted promotions. By offering customers coupons and other rewards, the self-service solution engages frequent customers, creating brand loyalty and increasing revenue.

Survey

Self-service solutions help businesses and organizations learn more about their customers. In-store surveys collect consumer insights while they are still at the location. Businesses can use the information to create more targeted content for consumers, improving the experience and increasing revenue.

Software

Choosing the right software platform is crucial to a successful kiosk or digital signage deployment. The software platform determines everything from security to monitoring to integration – and ultimately, to user experience.

There are inexpensive and simple solutions for displaying web content securely on a kiosk, like Chrome's Kiosk mode or mKiosk by Firefox. However, these do not fall under the category of a software platform. Instead, these options simply lock down web content in a secure browser. They will not control port access, USB access or report on component functionality. For this, a more advanced, true software platform is required.

A true self-service software platform enables you to integrate multiple peripheral components, customize security and monitor devices remotely. While these features might seem overwhelming, a proper software platform is created with the end user in mind, and should be easy to manage no matter the deployer's technical experience.

> The software platform determines everything from security to monitoring to integration – and ultimately, to user experience.

User Interface

A true software platform can secure web content, but also has the ability to display a high-spec user interface, be it web-based or a local application. The platform should provide a rich tool-based environment which enables users to easily navigate and consume content. A custom kiosk or digital signage interface is best for user experience because it leverages responsive design. Rather than using a website which assumes the use of a keyboard and mouse, a high-spec user interface will allow the user to have a more fulfilling experience with the responsive touchscreen.

Component Integration

A proper software platform can integrate with hundreds of optional components to enhance the kiosk or digital signage for a variety of use cases – bill payment, patient/visitor check-in, print-on-demand, self-ordering, etc. A platform should integrate multiple devices at deep system states. For example, the platform should know the difference between low cash in a cash dispenser and an issue with the touch screen, and then possess the granularity to send different alerts appropriately. While a low paper alarm might go to the local store manager who has a key to change the paper, an issue with the touch screen monitor alert might go to the IT department of that company or a service entity who possess the technical skill necessary to resolve the problem.

Security

Your software platform should give you the option to whitelist and blacklist particular websites. Whitelisting enables businesses and organizations to create a specific list of web pages or URLs users are allowed to view. Blacklisting allows businesses and organizations to create a list of URLs users are specifically denied. For instance, if a kiosk is being used by internal employees for HR purposes, the employer might blacklist social media websites or simply whitelist the specific web pages employees are supposed to use.

Hardware

Self-service kiosks with touch screen interfaces have delivered tremendous benefits to businesses and organizations, as well as their consumers. Here are the steps to take in order to ensure your kiosk or digital signage is successful.

Security

Kiosks are often located in public spaces. When the kiosks have public access, they can be prone to theft and vandalism. To discourage and prevent tampering, kiosks should be designed with tamper-resistant features, such as strategically placed stiffeners, extra weld points and compression locks. Proper security for kiosks will ensure that the physical, data and network components of the kiosk are protected from tampering.

> "To discourage and prevent tampering, kiosks should be designed with tamper-resistant features, extra weld points and compression locks."
>
> **— Chris Gilder, CEO and founder, Meridian**

Industry Standards

When designing or building kiosks, it is imperative to choose a manufacturer that abides certain standards. There are many standards out there, among them are the International Standards Organization (ISO) and Underwriters Laboratories (UL). These two industry standards ensure quality (ISO) and safety (UL). If you are choosing a vendor for an outdoor kiosk project, it's imperative to understand if they maintain ISO certification and UL listing. ISO 9001:2008 exists so that manufacturers abide by strict quality controls. UL listed products ensure a particular level of safety likely necessary to install a kiosk in a public location. Looking for such quality and safety measures in your manufacturer will provide reliability and peace of mind when investing in an outdoor kiosk.

Environment and Weather Protection

Outdoor kiosks that are not built to withstand environmental factors will result in loss of revenue and equipment investment. Outdoor kiosks should be sealed properly to prevent the intrusion of water, smoke and dust. Outdoor kiosks should also have proper UV protection materials. Kiosks located outdoors may be exposed to elevated levels of temperature which requires a built in air-conditioning unit to avoid damaging the display, the computer and other components within the kiosk. Another problem encountered with outdoor kiosks is their poor readability because of sunlight. The display should be bright enough to have at least 2000 Nits of light to maintain readability in outdoor environments.

Durable Mounting

When kiosks are installed outside, they are left open to factors and conditions that may result in internal or external damage from physical abuse or extreme weather. Kiosks should be installed with highly stable cement mounting to prevent shaking, banging and vibrations that could cause issues with internal components.

Manufacturing

The first step in kiosk and digital signage manufacturing is conceptual design thinking. Designers use design thinking to create self-service solutions that help clients address their market needs. The team creates a series of conceptual and environmental renders for review. This is a critical step in figuring out what type of lighting or signage is needed to make the kiosk visible and attractive to users. The design engineers take the desired concept and create a fully functional 3-D CAD model, accounting for every screw, weld point, component, bracket and hinge throughout the entire unit. The team of engineers account for all the steps required in building a fully functional design.

After conceptual design engineering and design engineering, the solutions enter fabrication. This is when the cutting, bending, welding grinding and painting of the steel takes place. Next, the kiosk or digital signage is assembled. Each component of the self-service solution is fitted together and inspected before software integration. Software is integrated and tested by software engineers. Following software integration, each component of the self-service solutions are inspected to ensure quality and functionality. Finally, units are cleaned, inspected, wrapped, packaged, and overall prepared at the manufacturing facility before heading to the final destination.
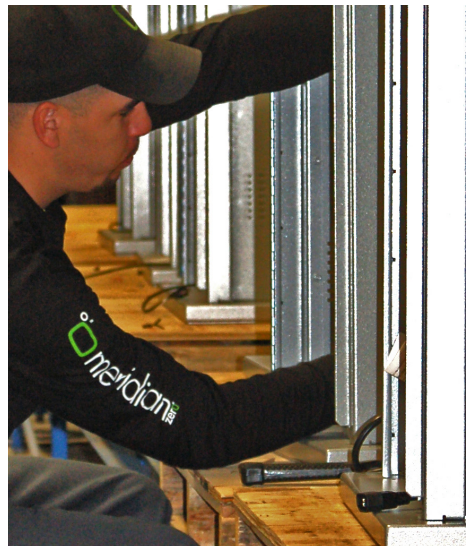
Maintain and Manage

Location

Proper screen placement is often overlooked by businesses and organizations during digital signage deployment but a good placement strategy is necessary to achieve success. Locations where consumers have a natural waiting time (e.g. check out lines, customer service, vending booths, etc.) or where there is heavy traffic (e.g. elevators, escalators, entryways, etc.) is a good location for digital signage.

In a retail setting, install screens promoting a certain product near that product. Store windows can also be a great location for digital signage as they can be used during store hours to draw customers in, and after the business is closed to capture additional attention. Locations where there is too much ambient light can make content difficult to see, as sunlight can wash out the image on the screen. A common screen placement mistake businesses continue to make is hanging the screen too high or too low. Customers walking through a store are focused on the goods in front of them. They may not look up or down, missing the signage entirely.

Content

Every medium used to convey information needs engaging content. From the words used to the font chosen, digital signage has certain nuances and size constrictions that need be considered in order to successfully reach the target audience.

Text should be legible up close and from a distance. Consider using black and white text for optimal legibility and include color through images and headlines. Dark text should be used on a light background or visa versa to ensure plenty of contrast on the screen. "I recommend using a sans-serif font for digital signage," said Gilder. When using a slideshow type screen with scrolling images, slow down the timing in order to allow the audience to consume the information. Often the screen frequency is too fast, leaving the viewer frustrated and unable to digest all of the content. However, leaving the screen for too long can be equally damaging to the message.

> " Every medium used to convey information needs engaging content. From the words used to the font chosen "
>
> **— Chris Gilder, CEO and founder, Meridian**

Remember that the screen is silent so text and images must be dynamic. If brand imagery is being used, keep brand icon usage consistent with usage in other media. Keep brand colors running throughout the screens to keep brand recognition throughout the presentation. "Use motion sparingly, too much motion can have a detrimental effect on the message by distracting the viewer," said Gilder. When using motion, keep a logo or text box static as a grounding point on the screen. Motion on the periphery is more subtle than motion in the middle of the line of sight. The most important features should be static.

Remote Access

One of the most valuable features a software platform can offer is the ability to be accessed remotely by non technical users. Rather than hiring a coding expert to change the URL of the kiosk, business and organizations can change the content of the kiosk or digital signage from their any computer connected to the internet. Remote access allows kiosk deployers to automatically schedule and change content based on current needs. For example, a company may want its digital signage to display advertisements for family activities and open shops during the day and, in the evening cater to a more mature audience by displaying advertisements for dinner specials and events.

Monitor Health

Remote monitoring solutions can give owners the ability to monitor the health of the kiosk operating system and software, along with hardware, in real time. Deployers can be notified if either the physical unit or the software has been accessed inappropriately, either by email or text message.

Multi-User Access

With remote monitoring, your software platform will be able to support multi-permission level access. Multi-user access can be used for alerts, security updates and pushing new content to the kiosk or digital signage. In some cases, a generic user might be limited to their own account, content and alerts. The IT team account might have access to manage all accounts and alerts, as well as the ability to push security updates and software to the device.

Customizable Alarms

Remote monitoring allows owners to customize what the severity of each alarm is and determine who an alert should go to. For instance, if a low paper roll is 80-percent empty, that alert might go to the local store owner. When the low paper reaches 90-percent empty, that alert could be escalated and sent to the district manager who can call the store to find out why it's not being replaced.

Analytics

Finally, a great remote monitoring solution should offer measurable ROI with the ability to pull logs, diagnostics and usage information reports from the kiosk and digital signage. A comprehensive remote monitoring solution should provide the deployer with reports including information about the number of users who interact with the system and the duration, where and what the user interacted with, viewed, touched, etc. While this information is valuable for IT purposes, it can also be leveraged for marketing research. It can even give deployers insight into changes that may need to be made in the user interface.

Investment

From wayfinding services to self-payment, businesses are reaching their audiences through engaging content displayed on interactive kiosks and digital signage. While self-service initiatives provide significant ROI opportunities, businesses should understand all of the necessary costs and how they plan to fit those costs within their current budget before moving forward.

Shipping and installation are rarely included in an initial quote. Shipping, of course, is always subject to change; so, many manufacturers will request a quote when the project is near close. Installation is not typically included unless specifically requested. Another fee that is worth considering is field support for the kiosk deployment. Customers should inquire about a Service Level Agreement (SLA) if this is necessary. Additionally, software license renewals should always be considered. Most software is either sold as a Client Assigned License (CAL), which will require annual maintenance (usually 20 percent of the licensing fee), or Software as a Service (SaaS), which will need to be renewed annually at its full amount.

> " If funding a project is an issue, companies can bring in a third party to finance the project. There are a number of capital finance companies willing to put up money in return for earned interest. "
>
> **— Gerhard Renner, CFO, Meridian**

If funding a project is an issue, companies can bring in a third party to finance the project. There are a number of capital finance companies willing to put up money in return for earned interest. These can be lease programs or finance purchase programs with multiple term options. Companies that go this route should be prepared for background and credit inquiries as well as possible requests for collateral.

Corporate Headquarters
312 S. Pine Street, Aberdeen, NC 28315 | +1 866-454-6757 | info@mzero.com

meridiankiosks.com