

Interactive Kiosks from the Hardware to the Software

When considering a kiosk deployment, it's not only important to think about the individual components, but how they'll work together.

The use of self-service technology is on the rise as businesses seek ways to operate more efficiently and deploy labor more effectively.

Nowhere is that more evident than in the proliferation of interactive self-service kiosks. The market for interactive kiosks is expected to reach \$73.3 billion by 2020, according to estimates by Chicago-based research firm Markets and Markets, growing at an annual rate of 9.2 percent over the next five years. A well-thought-out deployment of interactive kiosks can improve the customer experience, speed up the sales process and boost the bottom line.

Unfortunately, though, when deployers don't consider all the factors that go into an interactive kiosk project, what was meant to be an asset can turn into a liability.



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Taking a holistic look

Most business operators have learned that investing in a new technology without a clear goal in mind can be a recipe for disaster.

But investing in a technology that encompasses multiple components without considering how those components can work together can be disastrous as well.

"What often happens is that end users don't consider the entire process," said Rich Ventura, VP of Business Development and Solutions for Chicago-based NEC Display Solutions, a provider of digital displays and interactive kiosks. NEC's latest entry into the kiosk market features the company's 42-inch and 46-inch V Series displays. Each display has a touch overlay and comes with an Intel computer that runs on Windows 8.1.

"They hit a home run with the idea, but let someone else do it for them and fail in the execution," Ventura said.

The issue often comes up with retailers who operate on razor thin project margins and try to deploy a kiosk solution in the cheapest manner possible.

"A lot of times what they do is they go to one company to design the kiosk, then go to another company for the software, then go to a third party to design the user experience," Ventura said. "By doing that, everything ends up being disjointed and the deployment ends up being a failure."

Instead, potential deployers should consider each component of a deployment and how it will work with the various other components before moving forward with their execution.

Preparing for the future

When considering a kiosk solution, deployers need to consider not only what they hope to accomplish today, but what they hope the solution will be accomplishing in a year or two. If a solution isn't designed with futureproofing



in mind, a deployer is simply spending money that they'll be spending again not far down the road. That starts at the kiosk itself, the part of the deployment that faces the customer.

Although they come in all shapes and sizes, at the end of the day kiosks are metal boxes. While that may help keep the internal workings safe from tampering and protect them from changes in the environment, what may not be clear is how that will affect user interaction both now and in the future. Consider, for example, the deployment of mobile payment technologies such as Google Wallet or Apple Pay.

"Like anything, a kiosk deployment is only as strong as its weakest link," Ventura said. "Skimping on one aspect of the deployment takes away from the strength of the deployment as a whole."

"If a kiosk isn't designed to allow Bluetooth and WiFi signals to pass through them, a deployer is going to have a communication issue and problems doing what they want to do," Ventura said. "You have to design the product not just so it will support any type of user interaction today, but any type of user interaction that may be developed in the next few years."

And while users may be content with single-finger touch technology today, that may not be the case in a few years. Consumers are becoming increasingly comfortable with multi-touch interactions thanks to the prevalence of smart phones and tablets.

In addition, if a deployer hopes to incorporate anonymous video analytics for the detection of things such as dwell time and gender recognition, they need to make allowances for the incorporation of cameras into the device.

Other questions that should be considered prior to investing in a deployment include run time. Are the components designed for 24/7 operation? Is the kiosk enclosure designed for adequate ventilation and easy access to internal components? Is it going to connect to the network via a wired connection or by wireless? If wireless, will an antenna be needed on the kiosk enclosure?

And finally, is there adequate protection from power surges?

"You may be putting these devices in an environment where there may be other equipment that causes power issues," Ventura said. "You need to protect that equipment."

Selecting the software

After thorough analysis of the kiosk itself, the next step is to consider what's driving that machine. Kiosk software isn't as simple as just having a company's Web page load on the display. The software itself needs to be secure enough to prevent tampering, especially if customers will be conducting payment transactions on the device.

The content needs to be dynamic enough to pull in users, with an engaging, intuitive interface. And if kiosks are going to be placed in dozens or hundreds of stores, a deployer needs a centralized way to monitor the devices remotely, derive analytics and troubleshoot problems. For example, if certain products are available in some markets but not others, the kiosk software needs to have the ability to manage what products users can see.

And knowing one's audience can spell the difference between success and failure. Deployers can benefit immensely from knowing where people are engaging with the kiosks, what they are buying and how long they are at the kiosks, as well as their gender and age group.

"If I operate a clothing store and I know that I have primarily females aged 20 to 25 in my store between 10 a.m. and 2 p.m., that information enables me to focus my advertising not just at the kiosk but in my entire store," Ventura said. "The kiosk can become a focal point for customers, but it can also provide insight into what you should be doing in your entire operation."

Finding a knowledgeable partner

The spread of interactive kiosks has brought with it an accompanying growth in both the number of companies installing kiosks and those manufacturing kiosk components.

As a result, the waters of kiosk deployments are becoming ever-more difficult to navigate.



“More and more, we are seeing companies that install simple technologies think they can install kiosk solutions as well, but that’s not always the case,” Ventura said. “Working with someone who actually understands the intricacies of kiosks deployments is crucial.”

In addition, it’s important to continue that partnership after the initial installation. Buying replacement parts from a less-than-reputable manufacturer or working with a less than reputable service provider can derail a deployment.

“If I have several parts in the system and I replace one of the parts with a cheaper solution or a cheaper item, it may benefit my bottom line but it decreases my user experience and increases the likelihood of failures,” Ventura said.

“It decreases uptime and it increases overall service costs,” he said. “You could have the most amazing user experience, the most amazing back end and the best display in the industry, but if it’s not dependable it’s going to fail.”

Stepping back to consider all aspects of a kiosk deployment many end up costing more up front, but can pay big dividends in improved sales, lower service costs and an overall outstanding customer experience. And while businesses often approach kiosk deployments in terms of “return on investment” they should instead focus on “return on objectives.”

“Every single thing about a deployment has to meet your objective,” Ventura said.

“Knowing your objective is going to help you determine your return on investment,” he said. “If you know what your goals are and how you are going to evaluate them, you can then evaluate your return.”



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4 Tips for Kiosk Success

Know your objectives

- Don’t deploy technology simply for technology’s sake. Know your uses and have a clear idea of what functions the kiosks will perform.

Promote the kiosks

- Consumers are becoming increasingly accustomed to interactive kiosks. Make sure they know where yours are located.

Look at the data

- Kiosk software can provide all sorts of usage statistics, and that information can be enhanced with the use of anonymous video analytics. That information can help deployers find out what works and what doesn’t.

Don’t discount the human factor

- Nothing can be more frustrating than getting bogged down in a kiosk transaction with no one to help. Have human staff nearby to help assist users with any problems they may have.