# The Benefits of Multifunction Kiosks



INSIDE: Self-service kiosks are no longer a one-trick pony
— offering multiple applications on one machine increases
customer satisfaction and can help the deployer realize a
positive ROI more quickly. Here's how to do it.

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# About the sponsors



Source Technologies' kiosks provide the performance, capacity and throughput essential for the most demanding self-service applications, including bill payment, digital signage, quick-serve order, patient check-in and customerfacing retail interaction. A broad range of factory-installed upgrades and field-installable options position the devices for fast expansion and reconfiguration. Source Technologies' solutions grant organizations the ability to increase sales, achieve operation efficiency goals and maximize customer loyalty, optimized specifically to meet a company's unique needs.



**KioskMarketplace.com,** owned and operated by Louisville, Ky.-based NetWorld Alliance, is the world's largest online provider of information about and for the kiosk industry. The site's content, which is updated every business day and read by business and industry professionals around the world, is provided free of charge to readers.

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# Introduction: Why multifunctionality works

he top concerns I hear when discussing new kiosk deployments are physical space and capital expenditures. Square footage is a valuable commodity in many environments. one that most organizations aren't typically willing to give up for anything but the most effective technology solution. Many organizations, including retailers, government service agencies, healthcare providers and financial institutions, also typically operate on very lean margins. The technology solutions they deploy must provide a significant utility to their customers and allow these organizations to quickly realize a positive return on their investment.

But what innovative business operators are learning is that self-service technologies often can be tailored to offer various functionalities on a single device, thereby making the best possible use of the valuable space a kiosk occupies and the capital expenditure required to implement a kiosk project. Gone are the days of seperate kiosk investments for applications such as gift registry, loyalty program functions, customer check-in or credit/benefit applications. Through the work of companies such as Source Technologies, these functions and many more can co-exist on one efficient device.

And multifunction kiosks offer more advantages: They also can help organizations streamline operations, increase foot

traffic, educate customers and explore new revenue streams.

In this guide, we explore the many benefits of deploying multifunction kiosks as well as the best practices for doing so, including how to determine the applications you'd like to deploy, integrating a kiosk into its intended environment and much more.

We'd like to thank Source Technologies, whose sponsorship of this guide enables us to bring it to you free of charge.

 Caroline Cooper, editor, KioskMarketplace.com

Self-service technologies often can be tailored to offer various functionalities on a single device, thereby making the best possible use of the valuable space a kiosk occupies.

# Chapter 1

# The advantages of multiple functions

Function" essentially means "application" when it comes to selfservice kiosks, says Bryan Jorett, Source Technologies' vice president of integrated products division. Source Technologies is a provider of self-service hardware and software and specializes in kiosks with multiple functionalities.

Jorett says increasingly he sees that organizations want to improve the functionality of their existing kiosk offerings. For instance, many retailers have simple price-scanning kiosks, but these can be particularly suitable for additional functions, such as loyalty account maintenance, gift card purchases or wayfinding.

"We are seeing more and more applications on a single device," Jorett said.
"It's much like the evolution of the PC. It started as a word processor and grew to include e-mail and so much more."

# Benefits for the deploying organization

Cost savings. Combining different applications on one kiosk certainly can help an organization save money. Multifunction kiosks inevitably provide more bang for the buck, and the streamlining of functionalities that might otherwise exist on separate machines clearly accounts for fewer capital expenditures.

"A kiosk deployment can involve significant capital expenditures in application development, equipment purchases,



Combining different applications on one kiosk can save an organization money and provide customer service benefits. Kiosks can offer price checks, gift card purchases, loyalty program account management and more.

installation and maintenance," said Sarah Burkhart, director of product marketing for Source Technologies. "By streamlining the kiosk infrastructure, organizations are creating an opportunity to combine many of those costs. And, knowing in advance that a kiosk will support multiple applications will help the application development process stay on track and within budget. Nothing changes a budget faster than changing the scope of a project!"

Burkhart says that while many organizations think of kiosks with one particular application in mind, it's useful to explore what other applications might be supported in conjunction with the primary application.

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"Sometimes, when [our customers] start to consider digital signage, which complements virtually all kiosk applications, there is a mental block removed and the ideas start flowing," Burkhart said. "The best place to start is with the intended user of the kiosk, and organizations that deploy them need to have a deep understanding of the customer's needs and expectations. With this information at hand, other kiosk applications will either make sense or not, given a kiosk's location and utility."

Greater efficiency. Kiosks that house various applications also can help organizations achieve greater operational efficiency. Not only does the proper deployment of kiosks, in general, often free staff from performing functions that can be automated, but integrating multiple applications onto a single device also means consolidating service and maintenance.

Multifunction kiosks can be more timeefficient than single-function versions for customers, as well, and offering an assortment of applications can help drive new traffic to the deployment environment.

Jorett says he finds retailers asking why multiple applications wouldn't exist on one device.

"As history has shown, there will always be a newer, better, flashier future application that an organization will want to adopt," he said. "A multifunction kiosk will be able to accommodate this need. If we look at the current applications, most of them are not used all day, so it just doesn't make sense to have a single-function kiosk in most situations."

Multiple revenue streams. Not all kiosks are profit vehicles. But organizations can monetize self-service technology by adding revenue-generating applications to otherwise static kiosks, such as offering the purchase of gift cards on a kiosk that also is used for gift registry and loyalty account functions.

Other functionalities that can help organizations generate profits include digital signage (selling advertising space on the device), bill payment, mobile phone top-up, digital-download services, ticketing, check cashing and many more.

"When we encourage organizations to think about the kiosk from the user's perspective, that often drives the discovery of revenue generating activities that are appropriate for deployment on the same kiosk," Burkhart said. "It's all part of the discovery process and requires keeping the user's perspective in the forefront."

# Combining self-service and digital signage

It's no secret that digital signage is a hot technology. But it's fairly new and evolving significantly, so incorporating a digital

display into a kiosk project may incur some bumps in the road that wouldn't be experienced with a traditional deployment.

Self-service kiosks, particularly those with multiple applications, are designed to be interactive for the customer. Visually striking and engaging digital content can be combined with that interactivity on state-of-the-art displays to create engaging devices that customers are encouraged to touch. And the digital signage itself is then able to become interactive, as well.

"The digital ad that draws a user to the kiosk can now be extended to enable the user to find out more information about the product and ultimately place an order," said James Kruper, president of kiosk software developer Analytical Design Solutions Inc., in a February 2008 commentary for KioskMarketplace. com. "Or a user can drill into a ticker-tape news item and read the complete story. The ability to make digital signage interactive enables more information to be transferred and ultimately improves the ROI of the deployment."

Organizations can get creative when incorporating digital signage into their kiosk deployment. For instance, a second

# Source Technologies ServPoint kiosk line

#### An interactive, multifunctional option.

Source Technologies has developed a nextgeneration, interactive self-service platform that supports a wide range of applications and can cater to virtually any deployment environment, including retail, government and healthcare.

The ServPoint family of kiosks features interactive touchscreens, a modular footprint, a variety of power and connectivity options and the ability to incorporate digital signage. Organizations can choose to employ any number of applications with these kiosks, including price checking, stored-value card dispensing, product information and location, gift registry, queue management, customer check-in, appointment scheduling, verification of healthcare coverage or government benefits and more.

screen can be integrated to enable the constant exposure of advertisements, thereby engaging a captive customer who is already at the kiosk and ready to be influenced.

"The ability to make digital signage interactive enables more information to be transferred and ultimately improves the ROI of the deployment."

- James Kruper, president, Analytical Design Solutions Inc.

It's not just a matter of tacking on an extra monitor, though. Organizations must consider the technicalities of integrating a complex technology. But the good news is that a person familiar with the nuances of kiosk deployment already will have encountered most of the issues.

"The most important aspects include the need for the user to be kept away

from the kiosk's operating system and network, to clear the user's confidential information and to reset the application after the user leaves," Kruper said. "These are significant requirements to add to a digital signage application, but were fortunately solved long ago by the kiosk industry, so there is no need to reinvent the wheel."

# Common kiosk applications and their benefits

Below is just a sampling of common kiosk functions. Organizations have the ability to combine these and other applications on one device, and many times they are even able to customize applications to meet their needs, as well as those of their customers.

#### Product information and location

- » Increases customer loyalty and satisfaction by empowering shoppers to accomplish their goals independently
- » Frees employees to provide customers with more targeted and beneficial interactions
- » Enables promotion, cross-selling and up-selling; a kiosk will crosspromote 100 percent of the time

#### Bill payment

- » Allows organizations to reach growing unbanked market, particularly in a challenging economy
- » Frees employees to focus on serving customers instead of the timeconsuming and expensive task of processing payments

- » Offers a quick and simple option for customers to complete a necessary task
- » Transaction fees can increase revenue

#### Customer/patient check-in

- » Streamlines process of servicing customers
- » Allows customers to browse until served, instead of standing in a line, thereby exposing them to the brand and products and decreasing their perceived wait time
- » Allows more efficient use of valuable in-store space

#### Credit/benefits enrollment

- » Frees staff from overseeing time-consuming and arduous credit or benefits application and approval process
- » Reduces instances of error in approval process
- » Saves customers from being embarrassed and staff from feeling discomfort when an application is denied
- » Can often be combined with credit card bill payment to drive traffic and be a time-efficient option for customers

# Chapter 2 Intelligent design

loday's self-service devices must be attractive, inviting and easy to use, and they must create an emotional resonance with the user. Today's customer demands these things, so it's important to design a kiosk deployment that meets their needs while also being user-friendly and inviting.

Never before has consumer awareness of the aesthetic value of products been so high. Never before has form balanced so well against function. Elite fashion designers and world-class architects are plying their wares at the local Target store. All of this serves to raise the bar — and the possibilities — for the organization embarking on a self-service kiosk deployment. At one time, functionality was all that was required; it was enough that the ATM dispensed money, and it was unnecessary for it to be visually appealing.

Not anymore. For a kiosk project to run smoothly, it's important to look at the overall project.

Following are the critical questions a kiosk deployer and designer must ask before designing a successful kiosk.

### What is the application?

Companies often start kiosk projects on the wrong foot by failing to focus on the obvious — what the machine is supposed to do.

"People approach a kiosk asking 'What type of box do I need?' instead of asking 'How is this going to affect my customer and my business?' You have to get those questions answered before you start looking at any technology whatsoever."

- Brian Ardinger, vice president of business development, **Nanonation** 

"The client should never lose sight of what the kiosk was originally intended to do," said Frank Olea, vice president of kiosk design firm Olea Kiosks. "During the discovery or design phase, the client can easily be distracted by bells and whistles. I often find myself speaking with clients about a kiosk application, and it seems as though they can only focus on key features or ideas they've seen elsewhere that they'd like to incorporate."

Getting caught up in the whirlwind of possibilities and available features at this early stage in development is analogous to an auto manufacturer making plans for the stereo system before designing the drive train and engine. For self-service, focusing on technology prior to operational factors is putting the cart before the horse.

"Don't start asking questions about software and hardware until you understand the business and what the business drivers are," said Brian Ardinger, vice

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president of business development for software developer Nanonation. "People approach a kiosk asking 'What type of box do I need?' instead of asking 'How is this going to affect my customer and my business?' You have to get those questions answered before you start looking at any technology whatsoever."

A good rule of thumb: You should be able to summarize the purpose and intent of your kiosk program in one brief sentence.

# What software will drive the kiosk?

Once a self-service kiosk has been designed and placed, it's time to power it up. But what software will drive the kiosk? Options are plentiful and range from off-the-shelf packages that allow drag-and-drop interface creation to barebones, open-source tools that intrepid organizations can use to build an application from the ground up.

For devices that will interact with the company's existing databases — like price look-up or gift registry, for instance — it is essential not to try to reinvent the wheel. The kiosk's front end should be designed to interface with the store's existing back end, in which case the kiosk becomes just one more extension of the store's current IT framework. Many kiosk software packages are built to provide exactly this functionality.



A successful kiosk deployment should be aesthetically pleasing but first and foremost, it must provide useful applications that meet customers' needs.

Financial transactions are inherently complex, and any kiosk that will process payments of one sort or another should be tightly integrated into the existing POS system.

A fully integrated and tested financial solution should deliver complete customer satisfaction and a printed transaction receipt.

Sometimes, a custom software application is the only answer. That was the

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case with the Canadian firm CDSoft Inc., which develops kiosks for auto-dealer service departments. The machines allow customers to drop off their vehicles after hours, using the kiosks to start their own work orders.

Richard Deslauriers, president of CD-Soft, said the company faced a unique challenge in integration.

"In the car dealer industry, there are two major software vendors — Reynolds & Reynolds and ADP," he said. "The most important thing we had to accomplish was to create an interface to these systems because they represented more than 70 percent of the market share."

Above all, avoid the mistake of thinking an existing Web presence simply can be ported to a kiosk.

Web applications are designed to be accessed via a mouse and external keyboard and are poorly suited to the kiosk interface of choice, a touchscreen. Although the code behind the scenes still might deliver the same information, the front end of a kiosk application needs to look very different from a Web site, with larger buttons, fewer details on one screen and so forth.

#### Where will the kiosk be located?

Again, the territory so familiar it begins

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to seem cliché: It is impossible to discuss this concept without referring to the old real estate adage: location, location, location.

But sometimes, sayings become clichés because they are true. Selecting placement for your kiosks is one of the most important elements of the entire deployment.

"I always saw this as a common-sense item, but there still continue to be failures in this area," said Derek Fretheim, president of acire Inc., a company that helps organizations manage the integration of new information technology. "Retailers use end-caps to sell and spotlight products. They position products in the center of the shelves. Yet I still see a kiosk next to a trash can or stuck in a corner."

Fretheim's comment underscores an important point: Kiosks should be thought of as product offerings, not facilities. A businesses' restroom can be located pretty much anywhere, because customers will seek it out when they need it. In a grocery store, milk does not have to be featured prominently at the front of the store. Again, customers will find it

because they need it.

Self-service devices, though, need to be placed prominently, especially considering the slim chance that an organization is going to devote valuable advertising dollars to a campaign solely focused on driving traffic to a kiosk.

"Unless you've got a serious advertising budget and are planning on promoting your self-service device to the general public, people won't come into your store looking for a kiosk," Olea said.

But strategic placement alone is not

# Kiosks should be thought of as product offerings, not facilities.

enough. Calculated in-store marketing efforts, such as conspicuous signage and staff attempts to consistently promote the device, should also be included. Fretheim says the importance of marketing the kiosk once it is placed cannot be overstated, and as a result the chosen location must be one that will allow such marketing efforts.

"I have a grocery store in my area that placed the kiosk right at the main en-



Photo courtesy of iStock

Self-service kiosks need to be located in a convenient area to be successful. In a grocery store, placing a self-service kiosk in a remote aisle means people won't see it or use it, wasting the kiosk's potential.

trance, next to the shopping carts," he said. "It really did a nice job marketing this location with floor graphics and hanging signs. During the first two weeks, the store had an employee set up next to the kiosk, talking with customers and showing them how they can get coupons by swiping their loyalty card. This kiosk gets swiped nearly once every 60 seconds."

Olea pointed out another key challenge of location planning: regulatory compliance.

"If a kiosk is placed in a corner, a person in a wheelchair could not approach the machine properly," he said. "Placing a kiosk on top of a landing that requires climbing stairs would also make access impossible for some patrons."

And servicing the machine — which is inevitable — becomes an issue.

"A wall-mounted kiosk placed in an inaccessible spot might cause you to have longer-than-necessary service calls," he said.

When the ATM made its debut, it came in one shape — square. Today, self-service devices are available in a variety of shapes, sizes and colors.

Selecting the right form factor for the chosen kiosk involves considering existing fixtures and developing a kiosk with a look and size that is consistent with the environment surrounding the device.

Keep in mind that size and price aren't always related. In much the same way that laptop computers are more expensive than desktops, mini-kiosks can be pricier than floor-standing models since internal components have to be smaller. Maintenance also can be tougher, once again because of the size of the components.

"We see clients selecting the form factor based on necessity," Olea said. "It might be that floor space is at a premium in their facility, so placing a kiosk on a wall that can still have product below it might be best."

What type of hardware is needed?

#### What is the form factor?

Selecting the right form factor for the chosen kiosk involves considering existing fixtures and developing a kiosk with a look and size that is consistent with the environment surrounding the device.

Unless your customers are saints, your kiosk is going to take abuse over the course of its life. This is not to say your customers will abuse the machines intentionally, although some of them will. Quite simply, technology devices in public spaces receive lots of punishing treatment. Cutting corners on hardware costs can lead to massive headaches in the long run.

"A good rule of thumb is if it sounds cheap, it probably is," Olea said. "Nobody has magic suppliers that can give them the best product for the cheapest prices. Check your manufacturer's build quality. Is the fit and finish right? Do the doors close properly, or do you have to fight them? Can you take a keyboard out if it needs to be repaired, or do you need a degree in advanced yoga to get the bolts out?"

When determining which hardware options will be deployed, it is a good practice to closely inspect the peripherals that get the most wear and tear to gauge their quality and durability.

"Generally, just by looking at items like keyboards and printers, you can tell when something doesn't seem to be built to last," Olea said. "Remember, the public can be very brutal to kiosks. Trying to save a dollar now might cost you several dollars later due to broken hardware."

#### Other considerations

#### 1. "Usable aesthetics"

In the ongoing battle between form and function, a balance must be struck. Devices must work, and they must look great. Customers are no longer willing to accept one or the other.

Olea points to a concept he calls "usable aesthetics," in which visual elements are turned into functional ones and vice versa.

"A feature such as a shelf designed into the kiosk to make the user experience easier is an example of a usable aesthetic," he said. "The balance lies in design versus cost versus usability. Adding a shelf to a kiosk might add cost and might not make the kiosk look the best. But does it make the user experience a whole lot better? If the answer is yes, then the designer should look into incorporating a shelf but might have to use a different material to turn the shelf into an aesthetic feature instead of an eyesore."

At the Bytes Café in Canterbury, England, touchscreen kiosks sit atop every table, waiting to take customer orders. The cabinets were custom designed to fit the look and feel of the restaurant — and that aesthetic sensibility extended

"Usable aesthetics" means visual elements are turned into functional ones and vice versa.

all the way to the manufacturing level.

"Each kiosk has a contemporary feel that fits the restaurant's appearance and environment," said engineer Mark Bate, who helped design the kiosks. "This was achieved by housing the screen in a stainless-steel case that was cut with water to avoid visible joints in the stainless steel."

In Irvine, Calif., 30 Minute Photos Etc. revamped its retail space to offer a "boutique approach" to photo kiosks. Gone are the solitary machines sitting on countertops; in their place are new, user-friendly kiosks situated in front of comfortable chairs.

"We wanted to create a very friendly, non-high-tech appearance," said 30 Minute Photos owner Mitch Goldstone. "With the changed evolution of the photo industry, today's successes mandate the services be very easy to understand and use. Aesthetics are critical for differentiating and making sure customers enjoy their experience."

#### 2. User interface

The concept of "usable aesthetics" doesn't just apply to hardware — it plays a big role in user interface, or UI, design as well.

"Kiosk UI design presents challenges for most kiosk vendors and their customers," Olea said. "Developing these customer-facing applications requires proficiency in all electronic media: graphic arts, static and full-motion graphics and effective Web design."

Olea said there are five aesthetics-related questions that need to be asked of a kiosk's software application:

- » Are the UI screens attractive and easy on the eye, or are on-screen objects crowded or confusing in their positioning and labeling?
- » Are kiosk devices well integrated with the UI process flow? How easily do users find and interact with cash acceptors, card readers, PIN pads and other components?
- » Does the design account for hardware and network latencies? Does it apply user-input "threading" or other techniques to minimize the perception of waiting?
- » Do fonts and color schemes ensure that on-screen signage is legible? Does the signage attract users? Is it consistent with store signage and your overall branding?
- » How well does the design allow consumers to control their own experience?

#### 3. Branding

Many of the topics covered so far fall under the category of "science" — easily quantifiable, with fairly firm guidelines for

what works and what doesn't.

Once a deployer enters the realm of branding, however, he has departed science and entered the arts.

"Oftentimes when designing a kiosk, the client has a very definite brand identity," Olea said. "The trick is to bring that into the self-service space. Brand identity might not just be a logo or a color scheme. Frequently, clients think that painting a kiosk in their corporate colors is the key. Or they might take it a step further and brand the kiosk by placing graphics all over it. This doesn't always work. Sure, it's obviously owned by that company, but does it really speak about that brand?"

The branding discussion brings up an important distinction and one that has to be agreed upon at the corporate level: Self-service is not an IT initiative, nor is it a marketing initiative. It is a unique blend of the two, and both camps need to exercise give and take.

Brian Ardinger, vice president of business development for software developer Nanonation, said one of the biggest mistakes companies make when deploying self-service is to treat it as strictly an IT project.

"They take it from a software-development approach, rather than a marketing approach," he said. "One critical marketing consideration is how well the kiosk



Photo courtesy of iStock

Brand loyalty plays an important role in a shopper's purchasing decision. Making the kiosk fit the brand look and feel helps reinforce the brand in a customer's mind.

matches the customer's perception of the brand. Is it consistent with the other ways the business is trying to communicate with the customer? Is it a similar look and feel, with similar terminology?"

Ardinger pointed out that good branding does not necessarily mean a "one-visual-fits-all" approach — that is, where all collateral media across all channels are identical. Rather, they must imply one another in ways that intuitively make sense to the customer.

"It doesn't have to be the exact same terminology or experience as, say, the company's Web site," he said. "It doesn't have to be one-for-one branding, where button A here looks like button A over there. But it has to be consistent enough that there's not a disconnect between what the customer is expecting and

what is being delivered on screen."

When BMW North America kicked off its kiosk program in 2001, the kiosk design had to meet the stringent requirements of a very high-end brand with equally high expectations.

Robert Plante, kiosk programs manager for BMW, says the company got what it wanted in terms of its kiosk aesthetics by "being very tough and demanding about what we wanted."

BMW is a brand built upon a perception of very high quality, and Plante says the company was rigorous in making sure its kiosks gave that same perception. The kiosks, which include product-information machines in every BMW Center as well as wireless "surfboard" kiosks that can be taken to remote events, are visually striking and memorable — again, in keeping with the BMW brand.

Olea said creating a synergy between an existing brand and a new device requires a variety of disciplines, from design to material selection to manufacture. "We really study the client's brand from top to bottom to understand what the brand means and try to capture that in the kiosk design," he said. "Making a kiosk out of an exotic material, or using a special paint technique or placing graphics in key locations might be what's needed to drive the brand home."

For the Colorado company RealTime

Self-service is not an IT initiative, nor is it a marketing initiative. It is a unique blend of the two, and both camps need to exercise give and take.

Shredding, a visual brand is an essential component of its business. The firm, which manufacturers and deploys a kiosk that provides high security shredding for a per-minute fee, designed its machine to convey a feeling of security, stability and strength.

"We experimented with colors and looked at a number of enclosure designs early on to find a balance between security objectives and design objectives," said Amanda Verrie, president of Real-Time Shredding. "We believe the current self-service shredder conveys a feeling of strength and security, important for a tool that assists in the prevention of identity theft."

#### 4. Component selection

When it comes time to select the nuts and bolts — or, rather, the touchscreens and keyboards — that will make up a kiosk, there are two prevailing schools of thought: Build it yourself using the best parts you can find, or use a trusted vendor to provide a complete solution.

It's important to know exactly what goes into the box and how to ask your vendor the right questions when deciding.

Some key areas to watch:

**Touchscreens:** While all touchscreens aspire to do the same thing, they use very different mechanisms to do so. The intricate touchscreen technologies and types of displays are many and varied, so it is crucial for an organization deploying a kiosk to do its research beforehand.

By and large, touchscreen choice will be a factor of environment and expected duty cycle. Frank Olea recommends capacitive screens because of their ability to deal with dust but added that other types have their respective uses.

**Enclosures:** The kiosk market is filled with options for enclosures, many of which will work for a number of applications right off the truck. Custom-designed enclosures can do much to set off a project and make it distinctive but might not always be the best choice for entry-level deployments.

"Why invest the money in a custom design now when you don't yet know what's going to work for you?" asked Olea. "If your vendor has an off-the-shelf kiosk that you love, why not go with it?"

"Standard kiosks are always better to use in a beta-test rollout or small-scale project," Derek Fretheim, president of acire Inc., said.

#### Keyboards and input devices:



Choosing durable, attractive components for a kiosk helps ensure its longevity and appeal to customers.

Although touchscreens are the predominant form of user interaction with a kiosk, many projects will benefit from the addition of a keyboard and perhaps a trackball or other pointing device.

Obviously, off-the-shelf \$10 keyboards are doomed to failure in a public environment. But specialty keyboards and trackballs are becoming more and more rugged, able to withstand the abuse a kiosk will take.

"Make sure your keyboards are quality, just like the touch technology chosen," Fretheim said. "Dead keyboards kill projects."

Card readers, bill acceptors and dispensers: If your kiosk is going to accept payments, these devices be-

come crucial. While some kiosks have succeeded without a cash acceptor (the United States Postal Service's Automated Postal Center, for instance), prevailing wisdom says your machine should be able to accept as many forms of payment as possible.

If a business supports in-person cash payments, those need also to be supported through the kiosk solution. Unless most customer payments can be moved to the kiosk, the potential ROI will not be realized.

That said, select an acceptor that is aligned with your expected transaction volume.

"Bill acceptors can range from inexpensive vending-grade types all the way up to multinote acceptors with locking safes and large-capacity cassettes," Olea said. "If you only intend on taking \$1 bills and only every so often, why would you go with a banking-grade bill acceptor that can hold thousands of bills? Maybe a vending-machine grade might be better and save you several hundred dollars per kiosk in the process."

**Printers:** The workhorse of a kiosk, the printer also is the component with the most moving parts — and therefore the component most likely to break down. Choose a printer made by a manufacturer with a long, reliable track record. Pay careful attention to the availability and cost of replacement parts and repair

services.

For most kiosk applications, thermal printers with guillotine cutters are the most efficient choice. Fretheim emphasizes the importance of buying high-quality paper. "Don't go cheap on paper quality," he said. "Paper makes the difference in output, not the printer."

Some applications may benefit from using a laser printer within a kiosk, but those are in the minority. Laser printing brings with it higher costs — both in terms of original hardware and the toner used over time — but in some cases, as with a kiosk that prints full sheets of coupons, it may be a trade-off worth making.

#### 5. Ergonomics and accessibility

On July 26, 1990, President George H.W. Bush signed Public Law 101-336, 104 Stat. 327 — better known as the Americans with Disabilities Act. In broad terms, the law imposes penalties on businesses that discriminate against individuals with recognized disabilities.

For deployers of self-service, there are practical ramifications to the law. But according to industry experts, it makes

Peripherals should be laid out in a way that suggests a logical workflow, one that makes sense with what is happening on the touchscreen.

good business sense to keep your devices accessible to all, whether or not there is a regulatory reason.

According to Frank Olea, ergonomics and accessibility also play a role in software development.

"There should be a flow to the kiosk," he said. "Without mentioning names, I've used a self-checkout kiosk for several years here in the Los Angeles area that asks me to actually walk almost two feet to use my ATM card. Then I have to look around this six-foot plus kiosk to find my receipt."

He emphasized that peripherals should be laid out in a way that suggests a logical workflow, one that makes sense with what is happening on the touchscreen.

"Don't make your clients hunt around the kiosk to find a card reader and then have them bend over in an unflattering stance to find their receipt," he said. "If for some reason you absolutely can't place a device within an easy reach or view, make sure to use your monitor to show where the device is, in a clear and concise manner. Good screen shots can make or break an application."

#### 6. Keeping clutter out of the design

"Simplicity, simplicity, simplicity!" Henry David Thoreau wrote in "Walden." "I say, let your affairs be as two or three, and not a hundred or a thousand; instead of

a million count half a dozen, and keep your accounts on your thumb-nail."

Thoreau's mandate for simple living applies to good software development.

If it is important, say, for a Web site to have a clean and logical interface, it is doubly important on a kiosk where the same amount of information needs to be presented with less visual noise.

"If you're designing a Web transaction, you can put a lot on the screen," said Nanonation's Ardinger. "Drop-down menus, questions, there's a lot more you can pack onto the screen because the customer is sitting down and can study that screen. But in an in-store environment, you often have to break the transaction up into multiple screens so you can focus on one question you want addressed on a particular screen. Try to make it very simple. What is the one thing you want the customer to get from this particular screen?"

Olea said when it comes to kiosk design, yet another old adage turned cliché rings true: Less is more.

"Apple is a company that I admire greatly," he said. "I love their ability to design clean, simple-looking products, yet they somehow turn them into cultural phenomena."

# Chapter 3 ROI

unk cost.

They are the dreaded words that no experienced businessperson wants to hear. The word "sunk" sounds so final; so irreversible. The Titanic sank. And when it comes right down to it, we're not too keen on the word "cost" either.

Yet sunk cost is exactly what happens when a kiosk is deployed with no regard for potential return on investment (ROI). When the management team of a retail establishment makes the decision to launch a kiosk project, the goal should be to maximize revenue while minimizing cost.

If a kiosk project fails to make sufficient revenue — or worse yet, actually loses money — all of the funds that went toward that project are gone forever.

You'll never get them back. Like the Titanic, they've vanished forever in the inky blackness.

That said, it helps to have a firm understanding of exactly what ROI is and how it's calculated.

# Tangible and intangible revenues

The most obvious type of ROI consists of the tangible returns that come from a transactional kiosk. These kiosks represent a point of sale. They typically come equipped with a cash acceptor or a device that enables users to swipe their debit or credit cards.



Photo courtesy of iStock

A kiosk project that is deployed without regard for potential ROI is like throwing money away — the project could end up losing money and costing the business time and energy.

Tangible revenue is easy to measure: It's simply the total amount of sales that took place at the kiosk.

But what about kiosks that don't represent a point of sale, such as informational kiosks? Such kiosks may be used by customers at large superstores to look up which aisle contains a particular brand of microwave popcorn. This type of kiosk is not a point-of-sale machine. No cash is accepted because no transaction takes place. At first glance, there's no tangible revenue.

But dig a little deeper. Is it that the kiosk is providing no revenue, or is the revenue just difficult to identify? Easy-to-find products have a much greater chance of being purchased.

Hard-to-find products rot on the shelves. If your kiosk brings an added level of convenience to the customer's shopping experience, she'll be much more likely to buy that box of popcorn.

Customers will remember the convenience and will want to visit your store again. That translates into increased sales, even if those sales don't necessarily take place at the kiosk itself.

Even transactional kiosks can have added intangible benefits. Don England,

vice president of sales and business development for Livewire Kiosk, a company that provides kiosk software, gives the example of a kiosk that dispenses ski-lift tickets in grocery stores.

"One of the benefits of lift-ticket kiosks is that they reduce the pressure on lines at the actual ski resorts," England said. "Many times people will be waiting in line to purchase a lift ticket for 20 minutes or half an hour on a very, very busy day. But if you stop at a store and just pick up your lift ticket on the way and go right to the lift, you're reducing the cost to the resort, and you're improving customer satisfaction. Customer satisfaction is the hardest type of ROI factor to quantify."

The bottom line is finding ways to quantify the intangible so that ROI can be effectively measured. England says it's not as hard as it sounds. It may mean measuring overall product sales both before and after a kiosk is deployed.

"Perhaps you have to look at basket size since the kiosk project was implemented or average orders since the kiosk project was implemented — the number of sales or transactions of certain products," he said.

If you can discover the extent to which

Tangible revenue is easy to measure: It's simply the total amount of sales that took place at the kiosk.

#### CHAPTER 3 ROI

your kiosk project contributes to that, you'll have a handle on measuring and enhancing that kiosk's ROI.

For multifunction kiosks, ROI is anecdotal.

The mere fact that you are consolidating single-function kiosks helps companies save money.

"Utilizing the device for many applications definitely helps justify the cost of these solutions in the long run," said Bryan Jorett, Source Technologies' vice president of integrated products division. The bottom line is finding ways to quantify the intangible so that ROI can be effectively measured.

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