

Digital Signage in the Retail Environment



INSIDE: Digital signage is a powerful tool for retailers, but doing it right requires intelligent planning. In this guide, you'll learn about the basics of digital signage: how to build your strategies for content, placement and dayparting; how to choose the right hardware and software; and how to measure the results.

Developed and Published by:



Sponsored by:



Contents

Digital Signage in the Retail Environment

Page 3 Sponsors

Page 4 Introduction | Getting started with retail digital signage

Page 5 Chapter 1 | What is retail digital signage?

Customer education

In-store promotions

Capturing attention

Page 9 Chapter 2 | Building a retail digital signage strategy

Aspect 1: Content strategy

Best practices for retail digital signage content

Aspect 2: Placement strategy

Aspect 3: Dwell strategy

Unique features of digital signage networks

Aspect 4: Dayparting strategy

The four basic principles of aesthetics

Aspect 5: Call-to-action strategy

Page 17 Chapter 3 | An implementation checklist

Working with the creative team

Page 20 Chapter 4 | Measuring the results

Making a good impression

Of playlists, loops and layers

About the sponsors



NEC Display Solutions, a pioneer in developing and delivering advanced display technology, has taken a leadership role in providing total digital signage display solutions. By bringing together strategic project management and solid display solutions experience, it can provide solutions for a wide range of markets, environments and applications.

NEC offers a broad selection of LCD displays and projectors, coupled with expertise in hardware/software consulting, financing, system configuration, deployment services, maintenance and service/support. The result is a customized, technology-rich deployment optimized specifically to meet a company's unique needs.



Retail Customer Experience, operated by Louisville, Ky.-based NetWorld Alliance, is the leading online publisher of news and information on how retailers can differentiate their offerings, create customer excitement and loyalty, and increase revenue by improving the customer experience. The content, which is updated every business day and read by professionals around the world, is provided free of charge to readers.

Published by NetWorld Alliance

© 2009 www.networldalliance.com

All photos courtesy of NEC Display Solutions unless otherwise specified.

Written and edited by **James Bickers**, editor, Retail Customer Experience

Dick Good, CEO

Tom Harper, president and publisher

Bob Fincher, executive vice president and general manager, Technology Division

Joseph Grove, vice president and associate publisher

Introduction

Getting started with retail digital signage

If you've ever dedicated yourself to a physical fitness program, you know exactly how hard it can be to determine the right steps to take. Once you've decided you want to get in shape, you head to the bookstore or the library, and once there, you're confronted with dozens of experts telling you exactly how you need to reinvent yourself. Of course, no two of those plans are identical.

Retailers deploying digital signage might find themselves facing a similar overload of information. A lot of strategies are available for planning and deploying retail digital signage, and while most of them have similar intent and overall themes, they differ in the specifics. They differ in how they weigh the importance of each aspect. They differ in timing, in syntax, in tone.

And while some diet and fitness plans are best avoided, if you pick one intelligently, devote yourself to it and stay the course, you'll succeed. There is no one correct program. So too with digital signage deployment plans, one of which is outlined in this guide. It's not the only way to do it, but it is one way to do it, and it will work if you are committed to it.

Our plan, developed in conjunction with our sponsor, NEC Display Solutions, takes a five-tiered approach to digital signage. Each of the five strategies — content, placement,

dwelling, dayparting and call to action — represents a manageable chunk of information and decision making. Put together, they create a holistic strategy that can be managed with relative ease.

You'll also have confidence that your decisions are sound, that they are based on sound choices that are right for your company.



By James Bickers,
Editor, Retail Customer
Experience

It's worth doing, it will reap big rewards in the long haul and it will ultimately become something you wish you'd done sooner.

As with dieting, what matters is not so much how you do it but rather that you do it. Retail digital signage is similar. It's worth doing, it will reap big rewards in the long haul and it will ultimately become something you wish you'd done sooner.

We wish you all the best with your endeavors. And a special thank you to NEC for making this guide possible and enabling us to provide it to you at no cost.

Chapter 1

What is retail digital signage?

The buzz surrounding digital signage in retail is nearly palpable; you can almost feel it in the air. Digital signage is not entirely new — video walls and LED tickers have been around for years — but the plummeting prices of LCD and plasma displays, coupled with the proliferation of broadband connectivity, have ushered in the era of digital merchandising in retail stores.

This era arrives in tandem with a shift in consumer appreciation and expectation of technology's larger role in their lives. Their world is filled with digital content — at home, at work, at play — so customers are beginning to expect it where they shop.

“In-store digital media is needed today because most consumers in North America now live with digital media via the Internet and handheld devices at home and at work,” said Bill Collins, principal with technology consultancy DecisionPoint Media Insights. “They like it. They interact with it, they search for information on it, they play games with it. It is such a fundamental part of consumers' lives that they would think it odd if digital media disappeared from their day-to-day experience at the precise moment that they walk into a retail store.”

Wayne Ruttle, vice president of sales for ADFLOW Networks, said he sees the effect of this media going a step further. He believes customers are



Information is vital to making purchasing decisions. The most logical placement of this information is right where the customer will make that decision.

so used to digital media that they no longer see static point-of-purchase messages the way they once did. Their eyes glaze over at the sight of static signage. If this is true, the situation has reached a point of no return, a breaking point that raises the bar for all retailers that wish to remain successful.

People love to buy things, but they don't like being sold to. They want information, but they want to receive it in a way that feels empowering to them.

Plus, digital signage simply works better, particularly in a world where buying habits have changed so drastically.

Chapter 1 What is retail digital signage?

“The increasingly fragmented nature of broadcast television and the advent of the DVR have made the traditional mass medium of television less efficient and often a crapshoot,” said Ken Goldberg, chief executive of digital signage company Real Digital Media. “Digital signage offers a very efficient means of bringing the message to the ‘last mile’ of the consumer cycle. The message is delivered to the consumer while he is in the store, with merchandise in arm’s reach and a cash register nearby. Compare that with a message delivered to a consumer who is lying in bed, distracted, with a TiVo remote in their hand.”

Customer education

People love to buy things, but they don’t like being sold to. They want information, but they want to receive it in a way that feels empowering to them. To this end, digital signage is a natural way to deliver information about product differentiation, in a manner that people are accustomed to receiving.

Information is vital to making purchasing decisions. The most logical placement of this information is right where the customer will make that decision. Digital signage enables this information to be up-to-date, eye-catching and effective in delivering the complete message to the customer.

Here are some examples of ways digital content can be used in-store to educate shoppers:

- In a kitchen supply store, cooking videos can demonstrate features of various appliances.
- In an electronics store, features of new products can be shown in eye-catching fashion, with sample representations of those features in action.
- In an automobile dealership, bulleted lists of features and accessories can be combined with lifestyle videos and branding material.
- In a restaurant, digital menu boards can highlight the day’s specials and new menu items.

Retailers have long used endcaps and in-store signage to generate interest in special offers. In-store digital signage gives the retailer much more power and flexibility with these campaigns.

In-store promotions

Retailers have long used endcaps and in-store signage to generate interest in special offers. In-store digital signage gives the retailer much more power and flexibility with these campaigns, driven by two key capabilities: Campaigns can be localized to a specific region within the store, and campaigns can be

Chapter 1 What is retail digital signage?

targeted based on time of day and day of week.

For instance, suppose a grocery chain is trying to improve sales of frozen foods. In-store digital signage would enable the company to run special offers on frozen foods elsewhere in the store, driving traffic to the frozen foods department. Those offers can include time-sensitive details (“Hurry! Offer ends at noon today!”) or a password-type system (“Tell the cashier you saw this message to get 15 percent off frozen pizzas!”).

More generalized messages can also educate customers about products or services they might be interested in. If a retailer has a food court or coffee shop, it makes sense to let shoppers know that a fresh batch of coffee was just brewed or the rolls just came out of the oven. That kind of time-sensitive delivery is not possible with static signage, and it can replace intrusive loudspeaker announcements, which have long been on the decline anyway.

Retailers must use caution, though, when attempting to grab a customer’s attention with any sort of media, since anything he perceives to be an interruption will likely backfire.

“A good rule of thumb is to integrate these technologies as much as possible into a logical, consumer-friendly flow in-store,” Collins said. “There is nothing wrong, per se, with using digital media

to divert the consumer’s attention, but this diversion must be done in a way that respects the consumer in that part of the store, at that stage of the shopping experience and at that particular moment in time. The last thing consumers want is to be interrupted — as they often are with e-mail spam, online pop-ups and telemarketing.”

Capturing attention

The appearance of motion can capture one's attention. Surprisingly, recent research (Franconeri, Hollingworth and Simons, 2005) has suggested that the appearance of a new object is not sufficient to capture attention. Other work (e.g., Nakayama & Mackeben, 1989; Kristjansson, Mackeben & Nakayama, 2001) shows that flashing/flickering images are not successful at capturing attention for extended periods — and that such flickers can be relatively well filtered out. Dozens of other studies have revealed other aspects of attention capture.

Attention can be captured by:

- Motion onset
- Luminance/brightness changes
- Color changes (only if dramatic)
- Faces — particularly emotional, famous or relevant ones
- Unique things (e.g., a red thing on a field of green things)
- “Task-relevant” items (e.g., if looking for a teapot, silver items will capture attention)
- “Resonant” items (emotionally, task-wise, etc.)

When creating content for digital signage networks, one should first decide whether or not they wish to capture attention. In some cases, for example when creating ambience, it might be desirable to remain “unattended.” If attention capture is desired, the specific goal of that capture should also be considered. For example, if the goal is to warn the viewers, then any “trick” might suffice to capture attention.

However, if the goal is to perform a gentle soft-sell (or provide a reminder), then a subtle attention capture might be more appropriate. Of course, the overall artistic/creative nature of the content must also constrain or indeed develop from the choice of technique.

(Excerpted from “Digital Signage Networks: Theory, Psychology and Strategy” by Pixel Inspiration Ltd., reprinted with permission.)

Chapter 2 Building a retail digital signage strategy

For all of its strengths and positive attributes, retail digital signage involves a lot of elements that can go wrong. Information can be miscommunicated, brands can be damaged and customers can be alienated, unless the retailer has a solid strategy for its digital signage program.

We've isolated five key aspects of a successful retail digital signage strategy, and in this chapter we'll walk you through them.

Aspect 1: Content strategy

To define this portion of the strategy, simply answer two questions: How will the customer be engaged, and what are the desired results of that engagement?

For a supermarket, the desired results might include a bigger basket and co-op revenue from the brands. For a chic apparel retailer, the desired result might be a slicker impression of the brand in the mind of the consumer. Knowing these goals, however many they may be, is the first step.

How to engage the customer, then, becomes more about the nuts and bolts of the message. And in-store digital signage offers many opportunities to present messages that have not been possible until now.

“The important thing to remember here is that you are creating a vehicle to communicate with the same people



who are bombarded with thousands of sales messages everyday, and many of them have learned to tune the ads out both physically and mentally,” said Nurlan Urazbaev, director of marketing for software provider BroadSign International. “The strategic advantage of digital signage in retail is that it is facing people in a purchasing mode, looking for the right product. This circumstance makes them more responsive to information about the products.”

That in-store mindset is key; it means the shopper is actively thinking about what to buy (and what not to buy), rather than being in the passive mode that characterizes, for instance, most television viewing.

“The goal is to catch the customer’s attention, deliver a message and have the customer respond to the

In-store mindset is key; it means the shopper is actively thinking about what to buy (and what not to buy), rather than being in the passive mode that characterizes, for instance, most television viewing.

Best practices for retail digital signage content

Urazbaev offered six rules of thumb for in-store digital signage content:

1. Using audio in most cases is not advised, as it gets lost in the ambient noise of retail.
2. Shorter ad length is more efficient in retail. Research and experience have gone a long way from repurposing 30- or 60-second TV commercials. Digital signage calls for super-short, straightforward messages of anywhere from three to 15 seconds.
3. In a dynamic in-store environment, less is more. Often a minimalistic but nicely designed call to action moves more merchandise than an award-winning, “artsy” production.
4. The low cost of content production for digital signage allows retailers to experiment with multiple versions and targeting — for instance, presenting different messages during different dayparts.
5. Exercise caution when using “filler content.” Do you really want to show your shoppers weather information? Didn’t they likely just come in from outside? Consider better uses of that screen real estate, uses that can move product.
6. It’s a good cost-management practice to have both an in-house content production resource for fast turnaround and postproduction tasks as well as an outsourced shop for bigger and specialty jobs.

message,” said Michael Zmuda, director of business development for NEC Display Solutions. “This needs to be accomplished in a few seconds, as the customer will rarely stand around to watch a 30-second commercial.”

Aspect 2: Placement strategy

Screen placement is about more than hardware and mounting brackets and security; it is chiefly a tactical decision, one driven by the content and how and when the retailer wants that content delivered to the shopper.

Opinions are divided within the industry on the effectiveness of digital signs at the checkout lane. One line of argument says that by the time the shopper sees those screens, she is already in line and will not be motivated to pick up more products. On the other side of the coin, waiting in line is a frustrating experience for most people, and providing some sort of distraction can result in shortening the perceived wait time (an effect referred to as “wait-warping”).

Chapter 2 Building a retail digital signage strategy

In this sense, it is worthwhile to consider the prevailing logic on the placement of static POP merchandising materials. Where will the customer be standing when he sees the message? Is the relevant product nearby? Does the signage complement the other items and structures in the surrounding area?

Also, once again, keep in mind that quality trumps quantity.

“Screen placement is an area where more is not necessarily better,” Zmuda said. “Too many monitors will detract from each other, and the message will be lost. If the goal is to affect a purchase, place the monitor near the source of purchase.”

Brad Gleeson, vice president of business development for Coolsign, said screen placement is equal parts art and science.

“Objectives and context are particularly important here, and brand and voice also need to be considered,” he said. “The way that the Apple Store places and uses screens is considerably different from how Wal-Mart or Bank of America or Chicago Transit Authority places them. They each have specific objectives — branding, merchandising, wait-time management, information/wayfinding — and understanding objectives and context is the key.”



Aspect 3: Dwell strategy

Knowing one's audience is of paramount importance at this stage. Retailers have long studied shopper behavior in the store, using technology tools such as heat maps to determine which areas people tend to linger in and which ones they breeze right through.

This aspect of the planning process involves taking that data and applying it to content and delivery decisions. If people in the deli line tend to wait a minute or more, then it may make sense to run 30-second infomercial content there. But content on screens in areas of the store where traffic moves faster will need to be adjusted accordingly.

Dayparting enables content to change based on day of week or time of day — making it possible to target specific demographic groups that are more likely to be in the store at those times.

Unique features of digital signage networks

Place is known. Because the location of any display will be known, this information can be used to make the content more appropriate to the place. If a display is located near one particular product, the content on the display can be crafted strategically with this in mind. For example, the content could promote that product, or promote its benefits, or create an appropriate mindset (ambiance, reminder) or to promote a complementary product or service available elsewhere.

Another aspect of “place” that is quite relevant is the fact that often a display is near the point of purchase. A great deal of research has shown that advertisements near the point of purchase are far more effective. Although the size of this effect and the explanation for why it happens are both controversial, it is clear that point-of-purchase information has a massive impact on behavior.

Time is known. Because a digital signage network is controlled by a computer system, content is “served” as a function of time of day. For example, content aimed at business travelers might be shown at an airport on Monday mornings and family-aimed content might be shown Friday afternoons.

Events are known. Information related to the fusion of time and place can also be known. For example, current weather conditions can be known. The traffic flow can be known. The specifics of an event can be known (concert, sale, flight delay). Such information — and its use — is limited only by the creativity of the digital signage network designers.

Audience is known. Because time and place are known, audience demographic and psychographic information can be well-specified. This allows for highly relevant “narrowcasting” that should speak directly to the audience at that moment.

Content is dynamic. Having dynamic, digital content has numerous advantages over other forms of advertising. Compared to print, the content creation/distribution process is more rapid and less costly. Also, the content can be customized and tailored on the fly to each display device separately. Finally, the medium allows for animation and, in the case of kiosks, interactive opportunities.

(Excerpted from “Digital Signage Networks: Theory, Psychology and Strategy” by Pixel Inspiration Ltd., reprinted with permission.)

Chapter 2 Building a retail digital signage strategy

“It is important for the retailer to know their daily demographics and traffic flow,” Zmuda said. “This varies from location to location. To obtain the best effects from a digital signage system, the retailer cannot live in a vacuum. This is not the same as placing a TV behind a bar to keep patrons in place by running sports. This is about knowing who will be in the location, at what times and what messages are best suited for that audience.”

How can a store map its traffic patterns? Industry leaders point to a variety of methods.

“The most efficient way is to put an observer in to note the patterns of people — the way that people enter the store and go through — on a sampling basis,” said Eugene Fram, a marketing professor at the Rochester Institute of Technology’s Philip Saunders College of Business.

Some companies offer a more high-tech approach when it comes to mapping customer traffic patterns. David Smyth is vice president of sales and operations for Experian FootFall, a company that uses strategically placed video cameras to record customers’ actions, develop head counts and map traffic routes accordingly.

“What you’re trying to do is look for hot and cold spots — areas of high density of traffic,” Smyth said.

Warren Brown is director of marketing for IntelliVid Corp., another company that uses cameras and video intelligence software to gauge traffic patterns for retailers.

“What we find folks typically want to do with the video intelligence is use it to really diagnose why things are selling and why they are not selling,” Brown said. “How effective is a new display? We do that in a couple of ways. One is relating the traffic by that endcap to the overall store traffic.”

In-store digital signage offers many opportunities to present messages that have not been possible until now.

Brown explained that if a thousand people came into a store on a given day, 200 of them may have passed by that endcap. IntelliVid’s software lets retailers know how many people got close enough to the endcap to pick up a displayed item from that shelf. Further, the software lets retailers analyze how many of the 200 who passed the endcap stopped and lingered in front of it.

Human nature also plays a role. Research conducted by noted industry expert Paco Underhill has suggested that, when given a choice, most consumers will turn to the right after entering a store. That research

Chapter 2 Building a retail digital signage strategy

was explained in detail in Underhill's book, "Why We Buy: The Science of Shopping."

Other research points to a psychological barrier that exists approximately 15 feet within the front door of a box retailer. Dubbed "the decompression zone," in this space it is rare for an ad or product to catch the eye of entering consumers, said Georganne Bender, retail consultant and co-founder of consulting firm Kizer and Bender.

"We were in a store last week where they had a pretty jam-packed decompression zone, including this sign where they talked about how they were this national award-winning store," she said.

When Bender and the store owner counted the number of people who stopped to look at the sign and other items in that area, the owner realized that the sales on those products were low and people were not signing up for programs advertised there. Customers weren't even reading the signs — because they never saw them.

The area just beyond the decompression zone, on the other hand, is a prime location for what Bender calls "speed bumps" — hot products and cool displays that get the customer's attention and slow down his movement through the store.

Aspect 4: Dayparting strategy

One of the most flexible features of digital signage is the ability to daypart or offer different messages during different times of the day. Gone are the days of static signage that remains unchanged for a month or more. Now, customers can see different messages during a single trip to the store.

It is worthwhile to consider the prevailing logic on the placement of static POP merchandising materials.

"Dayparting is the easiest part of the strategy in that targeted messaging must be displayed based on the consumer demographic shopping at that time," said Wayne Ruttle, vice president of sales for ADFLOW Networks. "For example, a retailer may have seniors shopping in the morning, business shoppers in the afternoon and school-aged shoppers after the dinner hour. Content must always align with shopper demographics at all times."

Here are some examples of dayparting signage in action:

- Food court signage can run different content during breakfast, lunch and dinner hours.
- In a supermarket, morning content can be aimed at shoppers who move through the store at a more

The four basic principles of aesthetics

Jim Collins, president of DSX Media, pointed to four time-tested design principles that work wherever graphic design is used. They are taken from “The Non-Designer’s Design Book” by Robin Williams.

- 1. Proximity:** “Items relating to each other should be grouped close together,” Collins said. “When several items are in close proximity to each other, they become one visual unit rather than several separate units. This helps organize information and reduces clutter.”
- 2. Alignment:** “Nothing should be placed on the page (or display) arbitrarily. Every element should have some visual connection with another element on the
- 3. Repetition:** “Repeat visual elements of the design throughout the piece (playlist). You can repeat color, shape, texture, spatial relationships, line thickness, sizes, etc. This helps develop the organization and strengthens the unity,” Collins said.
- 4. Contrast:** “The idea behind contrast is to avoid elements on the page (display) that are merely similar. If the elements (type, color, size, line thickness, shape, space, etc.) are not the same, then make them very different. Contrast is often the most important visual attraction on a page (display),” he said.

leisurely pace; at 5 p.m., when it is more likely that shoppers will include harried workers trying to figure out what to make for dinner, messages can offer specific, targeted solutions.

- Malls and mall stores can tailor their content to younger shoppers during after-school hours and to adult shoppers when school is in session.

Aspect 5: Call-to-action strategy

In some instances, the goal of digital signage is to raise brand awareness or create an emotional resonance. The

retailer is not asking the shopper to react to the content in any specific way.

But most of the time, the goal is to trigger some kind of action on the part of the shopper. It could be putting an extra item in the cart, entering personal data using an interactive display or heading to the other side of the store for a just-announced special.

Each piece of content requires its own call to action, as well as the supporting business structure that allows it to happen.

“As in conventional advertising, a call to action may make sense where the

Chapter 2 Building a retail digital signage strategy

objective of the display is to influence viewers in some immediate way,” said Gleeson. “Clearly, interactive elements such as touching or (texting) based upon the content would be an indication that the viewer is engaged. In other cases, the call to action may be more subtle. In any case, if the objective and context are understood, the call to action can be properly developed. To drive engagement as well as ROI, the content objective should be clearly communicated, be relevant and be actionable.”

Getting customers to do what you want them to do is the entirety of the battle, of course, and that is the purpose of digital signage as well. Fortunately for retailers, there is something inherently engaging about in-store digital media that helps fight that battle more effectively.

“Digital signage has the unique ability to deliver a very compelling, dynamic message that evokes emotion and subsequent buying behavior,” Ruttle said. “With the advent of touchscreens and interactive technologies like SMS messaging, retailers can now engage a customer and deliver a customer experience that is second to none. New statistics are emerging that strongly suggest the engagement of an interested consumer with an interactive experience increases the odds of influencing a desired behavior significantly.”

Chapter 3

An implementation checklist

With newly minted strategy in hand, it's time to start setting some dates and enacting some real plans. The number of moving parts in this process can be overwhelming, so it's important for deployers to document each decision thoroughly and canonize them into a companywide set of protocols and procedures for the in-store digital signage project.

Deployers can use the following checklist as a guide for collecting the information and making the decisions needed to move forward with an intelligent plan for retail digital signage.

❑ Content creation and management

- **Created in-house or outsourced:** Do you have the internal capabilities to create video content? Are you best served by outsourcing all creative tasks or getting sufficiently up to speed to handle small tasks in-house?
- **Update/renewal strategy:** How often does your typical shopper return to the store? How often will you need new content? Can this be maintained in tandem with your existing calendar for in-store merchandising?



Following an implementation checklist can help ensure a successful digital signage solution deployment.

Chapter 3 An implementation checklist

❑ Hardware

- **Screen types (LCD vs. plasma, commercial grade vs. consumer grade):** Do you have a trusted partner for hardware? If not, get one. The options are many, and the shades of difference between similar products can be confusing. Find an expert you can turn to.
- **PC/media players:** These are the actual devices that manage the content and send them to the screen. Again, talk to your hardware partner. This is a decision that is not only financial but functional (such as how much room your physical environment has for hardware).
- **Mounting and wiring considerations:** Is your physical space ready for screens on the walls and shelves? If not, what will it take to get it ready? The more detailed data you can give to your hardware provider about your in-store infrastructure, the better.

❑ Software

- **Internally hosted, SaaS (Software as a Service) or outsourced:** Do you want to purchase content management software or rent it? This is not a decision unique to digital signage software by any means — IT departments are used to this conundrum — and the choice comes down to a confluence of goals, human resources and specific needs.
- **Interfacing with the creative department:** If you're going to be doing any content creation yourself, you've just introduced your creative team to a whole new world of media. (See sidebar, "Working with the creative team.")
- **Media types, playlists and technical considerations that touch software:** If you're counting on using any existing media, make sure it will work with the software you choose. How important is it to you that the software chosen can be easily used by multiple parties within the company (that it is simple enough that minor changes can be made by noncreative staff)?

❑ Integration, maintenance and support

- **Turnkey approach vs. dealing with the pieces:** Do you have the resources needed to manage an "a la carte" approach to digital signage, or is your enterprise better served by finding a partner to manage all the pieces for you?

Chapter 3 An implementation checklist

- **Installation:** A trusted A/V integrator is essential, not only for install day but also down the line. Ask for a walkthrough of the environment. Who will be where and when? What specifically will be needed to make the install happen without a hitch?
- **Maintenance:** Who will handle the maintenance in both the short term and long term? Talk to your hardware partner about ongoing maintenance contracts. Not only do screens need regular maintenance, but regular audits of media assets can also make the workflow smoother and on-screen content more effective.
- **Support:** What resources will be needed on an ongoing basis? Do you need to budget for more employees? How much can you expect to spend annually on replacement screens, media players, PCs, etc.?

Working with the creative team

Digital signage content has its own special needs, and chances are the creative team will need to be brought up to speed on its unique requirements. Here are some things to go over with the art department:

- Make sure everyone understands that this media is going to be delivered electronically in an automated fashion. It helps if they can be made aware of the locations of the screens to better get inside the mindset of the viewer.
- Help them understand who the viewer is likely to be; provide the team with as much demographic and psychographic information on the audience as possible.
- Emphasize the importance of using high-quality source materials when creating new assets. The final product will be displayed in high definition; it needs to look great.
- Explain the amount of time each item will be on-screen. A visual masterpiece that requires several minutes to fully appreciate will be wasted in a 30-second loop. Give your artists all the details you can about how and when the final product will be shown.

Chapter 4

Measuring the results

Retailers, banks, restaurants and any other businesses that deal with human beings at their location must always be aware of traffic. Declining foot traffic is a harbinger of things to come. ShopperTrak, which provides technology tools for measuring footfalls, estimates that a steady decline in foot traffic over a given period will result in decreased sales in about 13 months. And being aware of decreases as they happen allows businesses to move dynamically, enacting campaigns to bring more people into the space.

Laura Davis-Taylor, president of Retail Media Consulting, listed three primary tools to measure customer activity:

- Traffic counters, such as laser beams across the entrance to a store, are a basic tool.
- Video recognition systems, camera-based technology that counts the number of people who walk by a certain space, can determine if they stopped and for how long.
- Traffic-tracking tools, ceiling-mounted cameras that assign a unique numerical ID to each customer who enters the space, can create a log of that customer's activity in the store (movement, dwell time, patterns). That information can be turned into "heat maps" that are accessible in real time.

While the basic traffic counter is limited to rudimentary numbers, the other two options can be extended to provide data on the effectiveness of digital signage. Traffic data from zones within a store featuring screens can be correlated with POS data to establish relationships.

If the tool is sophisticated enough, it can track the effectiveness of individual campaigns on the screens. For instance, did that video promo for

"In contrast to broadcast TV, a modern digital signage system should be able to record every instance of an ad displayed on each screen. Having these statistics, it is easy for the ad sales department to show what exactly advertisers paid for."

- Nurlan Urazbaev, director of marketing for BroadSign International

Oreos result in an increase in sales? That POS data can also be analyzed alongside play logs, allowing operators to see which digital assets had the greatest effect on sales.

Making a good impression

One of the most important metrics for companies honing their in-store media is the impression. However, not everyone uses this term in the same way.

Chapter 4 Measuring the results

In the simplest usage, an impression occurs anytime a message is displayed. Some companies require a person to view the message in order for it to count as an impression, and some companies will make a distinction between a gross impression (anytime a message is displayed and one or more people are within viewing range) and a net impression (anytime a person demonstrates recall of a message). Complicating matters further are alternate terms — “ad view,” for instance, or “opportunity to see,” commonly used in the United Kingdom, both of which are synonymous with “impression.”

Other numbers that need to be tracked include reach, or the number of unique people who are exposed to the message, and frequency, the number of times each of those unique people was exposed to the message over a given period of time.

Multiplying reach by frequency creates a figure called the Gross Rating Point, or GRP. “A GRP, as defined by Nielsen Media, is a percentage point of the total audience size,” said Bill Gerba, president of WireSpring Technologies. “So, for example, in most Nielsen research, which revolves around television advertising, one GRP equals one percent of the total number of TV-viewing households.”

Finally, there are proof-of-play statistics, which are created and managed by the

software running the digital signage network. Nurlan Urazbaev of BroadSign International called proof-of-play numbers “the basis for accountability in digital signage” and a crucial component of an in-store marketing program.



“In contrast to broadcast TV, a modern digital signage system should be able to record every instance of an ad displayed on each screen; the player level is not enough,” he said. “At the end of a campaign a proof-of-play report compares the number of planned ‘ad plays’ — we call them ‘ad repetitions’ — with the achieved ones. Having these statistics, it is easy for the ad sales department to show what exactly advertisers paid for, reconcile invoices, etc. Solid proof-of-play also facilitates creating rate cards and campaign planning and budgeting.”

New and evolving technology allows deployers to do more than just display content. Traffic data can be used to dynamically change content, and POS data makes it possible to determine how effective a given piece of content is.

Chapter 4 Measuring the results

The level of detail provided by a proof-of-play report (also referred to as “play log,” “billing log” or “performance log”) varies from one software package to another. Perhaps the most important distinction to note is whether the software measures proof-of-play at the player level or the screen level. In other words, if the message was sent to five screens, but one of them was not functioning correctly, is that counted as five ad plays or four? Being able to measure proof-of-play at the screen level — knowing, in this example, that the screen was off and only four ad plays should be recorded — is an attractive capability, and one that will be especially important if the screen deployer wants to court advertisers.

Of playlists, loops and layers

One of the legacies of television and radio broadcasting is the concept of the playlist — a scheduled list of media assets that are to be delivered either at a certain date or time, or in a certain order.

The term “playlist” has migrated to the world of digital signage, but different companies define it in different ways. In some instances, it refers to a full schedule of every file that will be played at specified times; in other usages, it refers to a dynamic set of rules that chooses assets based on criteria such as time of day (also called dayparts), seasonal changes, events and in-store promotions.

While classic broadcast playlists may be used for digital signage programming, more often they morph into the concept of a loop, or the repetition of one or more media assets in a systematic fashion. For instance, a display in the clothing section of a department store might be programmed with a loop of ads for seven or eight different brands. Some software applications replace playlists with a dynamic programmable loop: At the scheduling stage, traffic managers enter instructions on how to play each ad, and the software automatically generates a loop for every screen, for every daypart, at every location.

Digital signage software also allows for segmentation of the screen into various regions — analogous, for instance, to the crawling text that CNN recently replaced with “flipper” headlines.

Loop length is the amount of time it takes for the loop to repeat — or, put another way, the amount of time it would take a customer to see the same spot twice. Planning a loop length requires knowledge of customer traffic patterns and dwell times. The length of the loop should be proportionate to viewer dwell time in order to optimize the opportunity to see each ad. The fixed length of the loop is maintained

Chapter 4 Measuring the results

by insertions of various default filler content in the slots that are not occupied by paid ads.

Digital signage software also allows for segmentation of the screen into various regions — analogous, for instance, to the crawling text that CNN recently replaced with “flipper” headlines. Screens can be broken into multiple segments for various purposes. For instance, it is common to see a sliver of screen real estate devoted to local weather conditions, while the larger window runs promotional content, and special offers crawl across the bottom of the screen.

“Many advertisers, however, insist that their ads should always be played on full screen, so the system should be capable of switching from split screen to full screen when required, if you want to satisfy those clients,” said Brian Dusho, executive vice president of BroadSign International.

One of the more sophisticated applications of digital signage involves layering, in which bits of content can be stacked on top of one another with specified degrees of transparency. For instance, if the same ad is running in several markets but with minor text differences, it could be built with two layers — a text layer and a graphics layer. The graphics layer could stay the same in all markets, with just the text changing locally, reducing the amount of rendering needed.