

1 The New Medium: Digital Signage and the Power of Content

One finds oneself faced with a plethora of choices for media placement and creativity in the vast digital landscape of information and advertising. Whether an agency, creative production facility, brand, or media conglomerate, one now must consider the latest installment, digital signage or Digital Out Of Home (DOOH). This latest screen, the 5th Screen, has its own characteristics, its own content methodology, and its own strategy to ensure success.

Every screen has been used in one way or another by advertisers to deliver messages. Just as the Internet, in the beginning, became part of our daily lives, content was approached from a printed brochure mind-set as opposed to creating media true to the medium itself. Advertisers have to consider the special nature of each screen to maximize the opportunities. Making the most of digital signage is no different. Because people have learned the visual language of movies and television and standards of interaction with the Internet and mobile devices, those habits will transfer to DOOH. But there are also characteristics of where and how viewers encounter each screen that make communicating through them different. It is the viewers' relationship to the screen and the mind-set they bring to the encounter that changes from screen to screen.

To understand how digital signage provides unique value to viewers, we should consider their expectations when they encounter it.

With television, for example, the viewer generally wants to be entertained; this mind-set dictates how the consumer absorbs the message. On the other hand, the producers of television programming have a different interest: they are intent on providing entertainment value that will capture enough attention so that consumers will also watch the advertising messages that pay for the entertainment. This creates a fundamental conflict: the viewer simply wants entertainment and resents the interruption when commercials interfere with that goal.

The entertainment mind-set goes back to the original screen—the silver screen—but consumers paid for that entertainment directly in the form of tickets. Television turned to the entertainment–commercial break–entertainment model instead and set in motion a long-running emotional battle. Television viewers accepted this model until they found a way around it, first by videotaping shows and fast-forwarding past commercials, and more recently with digital video recorders such as TiVo. Television producers are trying to deal with this disconnect by taking

another cue from the movies: using product placement within the entertainment itself—from a soft drink can to a pop song—to present products and charge a fee.

Now consider using the Internet on a computer. Here the viewer is engaged differently because the technology is interactive and the content is more personal. Again, as advertisers try to reach consumers through this screen, they encounter the same problem as with television: their goals are at odds. In this encounter, the viewers' reaction is even more aggressive. Pop-up ads, designed to interrupt users like the ads that interrupt viewers in the TV model, were quickly slapped down by irritated viewers with the use of pop-up blockers. (Proof of the demand for pop-up blockers is that they are now a built-in feature in most web browsers.) Banner ads are the most popular method for getting the attention of viewers, showcasing products related to the web site being visited or search words the viewer used to get there. Unfortunately, viewers usually ignore these ads unless they are seeking related products or services. Now banner ads employ animation and video in attempts to catch the users' eyes with movement—a different form of interruption to garner attention (and a potential click through).

The issue with advertising and the Internet is that viewers may or may not be engaged in an activity where they are receptive to advertising. When searching for products or services, a viewer is more inclined to click on a banner ad or a paid search advertisement. If, in contrast, the user is searching for more general information or viewing entertainment, ads are an interruption. Yet advertisers and marketers want to reach as many viewers as possible, so they are developing ever more sophisticated methods to generate a positive response and additional interaction by consumers. Sometimes these can be very unnatural, but in other cases, such as social networks, they can even be fun.

The mobile screen presents a challenge that makes it even more difficult for advertisers to engage the viewer. Mobile handheld screens fit into the pocket, purse, and palm of the viewer, making it very intimate. Initial tests for reaching viewers using this screen failed miserably. Direct delivery of messages was viewed as spam—spam that most consumers paid for by the kilobyte. People regarded it as they would junk phone calls and faxes: something unwanted that arrived on a device they considered to be personal and inviolable. Because of this, the mobile screen is the only one so far in which the consumer opt-in model is widely used.

The mobile viewer sees the phone as a personal tool. Add a media component, and it becomes a personal toy. The viewer's mind-set is about him- or herself and nobody else. The key for the marketer is to get the individual to choose to participate and to engage the viewer in alternate ways. Involving user generated content and DOOH is one way marketers have recently engaged mobile more effectively.

Clearly, marketers have a tough time getting their brands and messages to the viewer in a relevant way on most screens. It takes thoughtful, engaging tactics and downright trickery on all of these screens except one: The 5th Screen. For the first time in the history of media this medium matches the expectations of the viewer with the medium.

This is where, by providing the missing link connecting the other screens, the 5th Screen shines more brightly than any other. Its business model, content, and placement make it ideal for advertising. It is designed to bring relevance to viewers in many ways. When done well, it has delivered results that rival the fresh and personal nature of the first commercial television spots.

1.1 Types of Digital Signage Networks

Employing digital signage to best advantage requires understanding the different networks in which it can operate.

There are three basic types of digital signage networks that determine both the placement and approach to creating messages for these installations:

- A point of sale (POS) network is what you might expect: digital signage that consumers encounter close to a product or service for sale. These screens are usually composed of in-store or retail digital signs. Sometimes they include screens placed on the end of an aisle, or end cap, near the deli in a grocery store. These viewers are shoppers (Figure 1.1). The power of this type of network is that the call to action is immediate; the screens are placed where consumers make their buying decisions. The content is attention grabbing and relevant to the product and brand while the consumer is focused on buying.



Figure 1.1 Point of sale networks are typically found where there are shoppers.
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Figure 1.2 Point of transit networks are placed where people are on the go.

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- Digital billboards, along with screens associated with transit hubs and store windows, comprise the second type of installation, point of transit (POT) networks. These are arguably the live poster of the industry. They work by grabbing the attention of passing consumers for a brief period of time. The consumers are on-the-go viewers (Figure 1.2). These screens are mostly focused on establishing brand identity or value and parcel out visually attractive or active content in short bursts. Many consumers are already familiar with these types of POT networks. Even an exterior screen on a taxi that functions as a moving billboard is considered to be a POT screen.
- The third type is known as the point of wait (POW) network—one targeted to consumers waiting for a product or service. Usually we encounter these in retail lines and healthcare and hospitality locations, as well as internal corporate communications. The consumers watching these screens are dwell time viewers (Figure 1.3). One typical POW network is found in retail banking, where consumers are entertained in a queue while also being exposed to advertising and general feel-good content. Good content, usually lengthier, results in a happy customer for the teller. It is all about perceived wait time. Digital screens installed inside elevators present a quick news bite, an ad, and perhaps a weather forecast during the short trip from one floor to the next and enable advertisers to reach viewers during this dwell time. Another area where screens are putting everyone on the same page is internal communications. Simply put, one cannot avoid digital signage in the work place. Some of these networks are interactive, such as screens facing passengers riding inside taxis. In those cases, the viewer has more dwell time and can take in a longer message or series of messages. The common thread is that consumers viewing a POW network screen are both receptive and have sufficient time exposure to allow for longer messages and several repetitions.

Today most agencies think of the 5th screen as Digital Out Of Home (DOOH) as many within the industry do, but mostly when it refers to ad-based networks. The advertising agencies are driving this. Simply put, it fits their Out-Of-Home (OOH) advertising nomenclature which has been in place since television came into force and brought advertising inside the home. There is a distinct difference between ad based networks (DOOH) and non-ad based



Figure 1.3 Point of wait networks take advantage of dwell time.
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networks (digital signage). And within one of the three network categories POW, DOOH and digital signage are used interchangeably, whereas POT networks are mostly referred to as DOOH. And POS networks are primarily called digital signage networks.

1.2 Keeping it Relevant

Each of these networks uses the technology of digital signage in remarkably different places and ways. In turn, they require marketers to develop specialized content for screens that hold relevance for the viewer when they are engaged in the primary activities of being on the move, waiting in line, or shopping. When the content touches viewers where they are and relates to their mindset and lifestyles, then it is relevant and powerful.

Relevant content can be displayed to the consumer through the manual process of creating playlists. Or it can occur in a more personalized way by using sophisticated search engines that couple available content with the type of network and exact placement of a given screen. Matching content with networks and venues provides useful information to the viewer and creates a more thoughtful, engaging experience.

All digital signage networks can change dynamically to keep up with the events of the day to deliver messaging that is relevant and targeted to a viewer's needs. Adding interactive capabilities to any of these networks naturally increases relevance and engages viewers in a sticky manner, meaning that the message sticks with the viewer because the experience is prolonged and the viewer is physically engaged. The tactile experience adds to the viewer's feeling of connection. The interaction ranges from the use of mobile phones and touch screens to gesture interaction. Gesture interaction is a very interesting facility where the movement of the participant in front of a screen or projection causes the content to change.

Data about viewer selections that are collected from these interactions can be very valuable for marketers who are fine-tuning messages and products to be more appealing to consumers.

1.3 Where is the ROI?

Return on investment (ROI) is measured in many forms depending on the type of digital signage network. For a POS network, sales ultimately drive the success of the network. For POT networks, return is driven by the number of eyeballs or people reached. For POW networks, there is a combination of call to action, eyeballs reached, and behavioral change in attitude of the viewer based on the experience.

Although each of the types of networks are measured by different metrics, these networks are almost always more cost-effective in delivering the same messages when compared with traditional media—including paper. After installing a network, resources used to keep it fresh are all digital all of the time. Delivery of content is electronic, modern screens are energy efficient, and the creation of content is digital. More resources can be invested in the creative side of the equation—the side that actually connects the message to the consumer—and much, much fewer resources are needed for production and distribution. The savings over time for printing and delivering paper and cardboard can be significant. So can the savings on the materials involved: paper, ink, and the energy to produce and transport them.

In some cases, as with digital billboards, this technology lets owners capture additional revenue by changing messages every 15 seconds or so. This reuse of the same electronic real estate allows for more brands to share the screen—something that is impossible with most paper signs. This has the added advantage of allowing fresh content to be displayed relative to the time of day, increasing consumer response. However, the most valuable part of ROI is in the effectiveness of the message delivery. Because DOOH connects so closely with the consumer, it can be made more relevant than other screens and reach consumers in places that other screens cannot (and in places when consumers are receptive); it simply can deliver better and more consistent message transfer.

That transfer, in turn, generates returns in the obvious form of greater product sales or the less obvious benefit: boosted brand value.

Because of this, marketers are able to reallocate less efficient market expenditures to digital signage to further increase ROI. Pulling budget from traditional media is a common occurrence. This is happening across many sectors and many types of networks. It is being done because of the proven results of deployments that are being tallied by network after network. The ROI in most cases can easily be proven in pilot phases of a network.

1.4 A Green Solution

The question that is asked daily in businesses across the globe is, How do we help our business become green? Digital signage is no different, and the same question is being asked of panel manufacturers, retailers, corporations, and the print world. According to the U.S. Environmental Protection Agency, 246 million tons of trash were created in 2008, but only about 50 percent (42 million tons) of all paper products were recycled. When it comes to printing posters, one must consider all aspects, including the inks, chemicals, adhesives, solvents, packaging, transportation, delivery, and then the disposal and recycling of the old posters. Common sense suggests that using fewer resources on a daily basis to deliver messages with energy-efficient displays is a more green solution than traditional paper-and-cardboard methods.

Does the energy required to operate displays outweigh the energy resources required to design, print, deliver, and install new signage on a monthly or quarterly basis? An extensive study of digital signage carbon emissions compared with traditional signage shows that the carbon consumption of a projected display is 7.5 percent lower than a traditional poster package. The independent study was commissioned by MediaZest, cosponsored by Cisco and Panasonic, and carried out by leading consumer research company ROI-Team and Brunel University. It took into account the emissions from warehouse to warehouse and compared all aspects of types of installation, performance, maintenance, and decommission, and it assessed consumption of electricity, diesel, paper, and ink. The digital display that was analyzed was a Panasonic PT-D4000 projector, 3M Vikuiti Rear Projection Film applied to the window, and a Cisco media player. All changes of content were sent via a broadband line, thus eliminating repeated printing of materials and road distribution. The lifetime of the display was set at 3 years.

Panel manufacturers are also making strides in creating panels that are energy efficient. New LED technology used as edge lighting instead of fluorescent backlight is an example of how the technology itself is changing to a more compelling green solution (Figure 1.4). The energy saving over fluorescent backlighting is, on average, 30 percent.

Figure 1.4 Edge lighting using LEDs are reducing power consumption.



Although all the data is not yet fully available, we do know that a single screen can effectively replace alternatives that require thousands of pieces of paper, hundreds of gallons of fuel, and the energy consumed by hundreds of hours of personnel resources over a short period of a year. From this, we can infer that a digital signage network is indeed likely to be a very green solution relative to existing approaches.

1.5 How DOOH will Change Marketing and Communications

Today's marketers already make use of most of the first four screens in an attempt to reach consumers. From product placement in feature films to TV ads, web banners, and even delivery of coupons via SMS text messages to mobile devices, each screen has a function in the marketing toolbox.

Marketers also know that the effectiveness of each of these screens is, in many cases, diminishing. Digital video recorders have created the TiVo effect, where consumers fast-forward through television commercials. On the Internet, most

users reject paid search engine results in favor of organic selections while using blockers to counter pop-up ads, a common tool that marketers use (with limited success) to compete with the attention-grabbing motion and video on web sites. The mobile phone screen is, by design, personal and a highly controlled environment, making it a difficult place to direct marketing content.

Effective marketing means working with the strengths, and taking into account the weaknesses, of each of these media. The power of digital signage lies in its ability to connect the dots effectively among other screens and to help ensure that an appropriate message is communicated to consumers with each step of their daily movements. Because consumers may encounter several types of digital signage in POT, POW, and POS environments during a given day, a coordinated use of digital signage can help a brand marketer ensure that engagement with consumers continues in a variety of ways from first contact until the point of decision.

Digital signage can work with other types of screens to deliver a marketing message more effectively to consumers. A product shown on a TV ad, with its brand reinforced by a digital billboard and again by a digital sign at a retail outlet, followed by an interactive digital sign on the store shelf, backed by an offer sent to the consumer's mobile screen all can be orchestrated and intensified as the day progresses.

The best way to understand this is to imagine a typical day for a consumer and how he or she might be reached. How are the consumer's decisions affected by digital signage? In the morning, our consumer arises and switches on the television, where he first encounters an advertisement for a brand of frozen pizza while watching the news. Going online to check his web-based email, he encounters a banner ad for the same product because the marketer is targeting the consumer's city as part of a promotion.

Driving to work, our consumer encounters his first piece of digital signage, a large billboard along the highway. Because roadway sensors are able to signal that traffic is slow in that section of the freeway on this morning, the sign intermixes images of people eating the freshly baked frozen pizza, the brand's logo, and timely traffic information. Between the parking lot and the office is an ideal time to stop and buy a latte—and encounter a smaller digital sign inside the retail location while waiting in line. The pizza maker is one of several brands whose wares are shown in 15-second video clips on part of the screen, which it shares with headlines and sports scores. The clip mentions the local 50-cent discount promotion.

On the drive home, the digital billboard on the freeway has changed. Now the time is approaching the dinner hour, and now an ad is presented with a specific call to action to purchase a frozen pizza for dinner on the way home.

At the local supermarket, our consumer encounters a small, shelf-mounted digital sign next to the frozen food case, near the pizzas. The themes of the other pizza company messages of the day are repeated in a 15-second clip, including the 50-cent off promotion. The end of the spot includes a call to

action for the consumer to send a text message to the pizza maker and in return receive a 50-cent off coupon directly to his cell phone. At checkout, the cashier will scan the coupon's bar code, and our consumer is on his way home with dinner.

Of course, it is likely that anyone would encounter additional digital signage during the day while waiting for lunch or waiting in line at the bank to deposit a check. Not every encounter will reinforce one particular brand or message. But the concept is clear: a single message or set of related messages can follow the consumer's physical path during the day, providing consistent reminders and eventually a call to action at the point of sale or decision.

Working in concert with print ads, TV ads, billboards, and the like, digital signage enables advertisers to reach consumers in places where, today, marketers typically are unable to deliver messages. Because the signs are dynamic and can adjust to real-time variables, such as time of day, they are more effective than static delivery systems.

1.6 Digital Signage as an Internal Communication Tool

Digital signage is not only useful to companies in outward, customer-facing applications. It can be an incredibly effective tool in communicating with employees about everything from company news and policies to the latest products and offers.

Placed in areas where employees congregate—cafeterias, break rooms, locker rooms, and stock rooms—digital signs can readily become a focal point of those areas and command attention. Because they provide high-resolution moving images, these screens are much more effective in capturing attention than email (and are much harder to dispose of without reading). The messages on these screens, because they are pushed to employees where they naturally assemble, are much more likely to be seen than similar content placed on intranet sites, which employees must actively choose to visit (Figure 1.5).

The video capability of screens makes them very effective for demonstrating a new product or procedure.

Content also takes on a peculiar psychological tone when presented on a large screen to a number of employees at once. It can take advantage of group dynamics by generating discourse or provoking group action about matters that are important to the company. These signs are especially useful for companies that have many workers without regular access to company computers and who would otherwise need to be reached with bulletin boards or printed newsletters. The latter media are more limited in their abilities to command attention, particularly when a workforce is mobile.

Once again, content is crucial; mixing softer material with more serious company information is most likely to keep employees' attention.



Figure 1.5 Rolls-Royce internal communications lobby screen.
©2009 Rolls-Royce Corporation.

1.7 Why Content Matters Most

Although all the evidence makes it easy to conclude that digital signage has an important place in the communication grid, that doesn't guarantee that an individual marketer, network, or screen will succeed with its deployment. Where the technology itself is a proven delivery mechanism, it is the content that often fails because marketers don't adapt their thinking to produce new content that matters.

This is not a startling revelation; each of the previous screens has either succeeded or failed in a particular case because of the content and how it was presented. The beauty of the 5th Screen is that its heritage comes from the previous four screens. DOOH, like the latest iterations of the TV screen, utilizes high-definition video, and like computers and the Internet, it uses Flash-generated content. As with mobile phones, it is personal and can be directed to an audience of one. Content for digital signage must stand alone during its creative production, but it must have continuity with the other four screens to echo its message across the digital landscape of screens.

In this communication grid, digital signage requires special attention to a number of unique details that are all distinctive within each and every network type, whether it is point of sale, point of transit, or point of wait. The messages change as we arrive closer to our point of decision to make a purchase. The message on the billboard may be brand driven, where at the shelf it will be

product driven, all the while maintaining consistent creative elements across all the screens and throughout the campaign.

The elements from high-definition video produced for TV or the Flash and digital artwork from computers and the Internet can be reworked and effectively repurposed for digital signage; the content is different from any of the other media and is unique to the 5th Screen. We can build upon the visual cues that have been developed since the beginnings of film, where color can drive an emotional cue and graphic forms can offer perspective. These cues are a familiar visual language delivered in a new setting: digital signage.

Refreshing content for DOOH is no small task, but when utilizing creative assets with slightly modified content, those assets will keep the messaging fresh in the mind of the consumer. Other considerations we will discuss in later chapters, such as dwell time and frequency of visit, directly affect how often the message is refreshed. In addition, by introducing time of day into the mix, messages can be altered to target an audience, at that precise time, in that precise place. Fine-tuning content to match the audience by age, income, and behavioral attitudes will also add to the creative workload.

When objectives for creating content include interactive features, the first inclination is to draw from web-based content that has already been created. Fortunately, design and graphic elements do translate, but interactivity for digital signage requires larger buttons and single-purposed actions on the screen at one time. This type of content also includes interaction with the 4th Screen, mobile devices, where digital signage is designed to promote and cause a call to action. Content downloaded or browsed on the mobile screen will share some of the same assets, but the context and messages will be different.

1.8 Summary

Digital signage is as diverse as the content that is displayed. It is technology that meets viewers in their environment with potentially the right message at the right time. I challenge the industry to drive toward a 25 percent penetration by 2015 based on the success of today's networks. And in a world where there is less than 2 percent penetration in retail, this means millions of points where digital signage will become present, and with that, billions of pieces of content will be created.

Creating content for digital signage is no different from creating content for any other screen. It takes thought, process, and strategy to create compelling, effective content. With digital signage, content (*with relevance*) is king.

The power of digital signage is delivering creative, compelling content that is relevant to viewers, and it will have an impact on the out-of-home experience in more ways than any other medium ever invented.