A guide from Digital Signage Today and Retail Customer Experience

Measurement and Analysis for Digital Signage

INSIDE: The definition of an "impression" is changing. Take a look behind the scenes of ad buying, audience measurement and data analysis to learn just what the numbers mean and how to generate them.

Developed, Published and Sponsored by:

DigitalSignageToday.com

retail customer EXPERIENCE MAGAZINE & ONLINE

Contents

Measurement and Analysis for Digital Signage

Page 3 About the sponsors

Page 4 Introduction | Following the numbers

Page 5 Chapter 1 | Measuring the audience

New technology on the horizon

What is the measurement currency of digital signage media?

What is the Average Unit Audience, and how can it be measured?

Of playlists, loops and layers

Page 12 Chapter 2 | Measurement and analysis for ad-supported networks

Three tiers of accountability for in-store digital signage

Dealing with media buyers

What screen owners need in order to reach ad buyers

The case for small networks

Page 18 Chapter 3 | Measurement and analysis for informational and brand-driven networks

Page 20 Commentary | Retail digital signage — from niche to mainstream?

The flight of dollars from TV has begun

Mitch Oscar: Death of TV is greatly exaggerated

Where does digital signage fit in the modern media landscape?

Who needs mass media?

What are the obstacles to growth?

What will it take for retail digital signage to make it into media plans?

Page 27 Appendix | Related articles from Digital Signage Today

The top 10 digital signage trends for 2009

Research key to providing DOOH audience metrics

OVAB releases Audience Metrics Guidelines, sells out first Summit

The psychology of digital signage

About the sponsors

Digital Signage Today, operated by Louisville, Ky.-based NetWorld Alliance, is the leading online publisher of news and information on the emerging world of digital signage, dynamic messaging and cutting-edge business communication technologies. The content, which is updated every business day and read by professionals around the world, is provided free of charge to readers.

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

All photos courtesy of BroadSign, unless otherwise specified.
Written 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

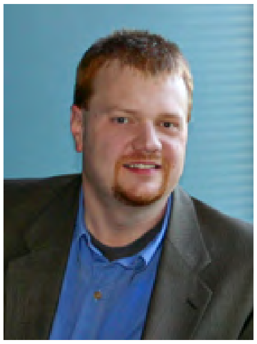
Introduction

Following the numbers

Online advertisers have it easy. Well, perhaps not too easy — it is a pretty crowded space, after all, as a cursory glance at any given browser window will tell you. But online advertisers have something pretty incredible going for them — they have a rich set of data on who has seen their ads, who has reacted to them and what those reactions were.

For traditional media like television and radio, numbers like these are just a pipe dream. A television advertiser sends out his message into the ether, and if a screen is turned on and tuned to the right place, it will display. Even then, there's no way to tell if there's a human being in the room to see it. (The growth of digital cable, which is a two-way medium, is changing that, but that's another story.)

An online advertiser, on the other hand, knows exactly how many times a given banner was served, what percentage of people clicked it and at what times of the day they did so. If that click leads to interaction of some sort — say, signing up for a newsletter — suddenly the amount of relevant data spikes upward. Over the course of a campaign, an advertiser can assemble some very real, very useful numbers.



By James Bickers, editor, Retail Customer Experience

Digital signage lies somewhere between those two, but it is closer to the latter in most regards. There are still instances where the tree might be falling in the forest with nobody around to hear it, but traffic measurement techniques and data analysis software are chipping away at this. Companies that hang digital signs in their business space are increasingly able to determine how many people are viewing the content on those signs.

Companies that hang digital signs in their business space are increasingly able to determine how many people are viewing the content on those signs.

Those numbers are worthwhile, whether the business is selling ad space on the screens or using them entirely for informational and brand-building purposes. They allow intelligent choice of content based on context — with the ultimate goal of delivering the right message to the right person at the right time.

We'd like to thank BroadSign International, whose kind sponsorship of this guide enables us to provide it to you at no cost.

Chapter 1 Measuring the audience

Retailers, banks, restaurants and any other business that deals with human beings in person, 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, estimated 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 the business to move dynamically, enacting campaigns to bring more people into the space.

Laura Davis-Taylor, president of Retail Media Consulting, said there are three primary types of tools that perform the actual measuring of customer activity:

- Simple **traffic counters**, such as laser beams across the entrance to a store.
- **Video recognition systems**, camera-based technology that counts the number of people that walk by a certain space, if they stopped and for how long, etc.
- **Traffic tracking tools**, ceiling-based cameras that assign a unique numerical ID to each customer that enters the space, creating 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.

Being aware of foot traffic enables retailers to move dynamically and launch smart campaigns.

While the basic traffic counter is limited to some very 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 point-of-sale, or 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 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 most effect on sales.

New technology on the horizon

Several new technologies are on the way that promise an even greater focus on specific customer data.

Arbitron has scheduled a rollout of its Portable People Meter, or PPM, over the next three years. The PPM is a pager-like device that a program participant wears throughout the day.

The device, which will take the place of the handwritten diaries that participants usually fill out and mail in, listens for special identification codes within the audio portion of any given media (a radio broadcast, for instance, or a television commercial or in-store promo). At the end of the day, the participant places the device in a recharger/docking station, which sends back to Arbitron complete data on what media that person was exposed to that day and at what times.

Perhaps the most exciting innovation in audience measurement, one that seems likely to cause a revolution in advertising accountability, is automated tracking and reporting. Companies like Quividi, TruMedia and CognoVision offer sophisticated hardware and software suites that use inexpensive cameras mounted on screens to recognize human faces. These products can usually determine the gender, ethnicity and approximate age of the person viewing the screen, and they keep detailed logs on who looks at what, for how long and when.

"The challenge for those high-tech measurement providers is to overcome the resistance on the part of agencies who are used to traditional manual surveys used for TV and radio," said Nurlan Urazbaev of BroadSign International. "To overcome such resistance, new providers will have first of all to make sure their reports are consistent with the requirements of OVAB's Audience Metrics Guidelines, so all data would be comparable with mainstream media.

POS data can also be analyzed alongside play logs, allowing operators to see which digital assets had the most effect on sales.

"Eventually, adopting new measurement technologies for digital signage would prove to be cheaper, more efficient and even more reliable than traditional methods."

What is the measurement currency of digital signage media?

As the saying goes, if you are not in on the plan — you are not in on the buy. So how does one get in on the plan? The key to that lies in the measurement currency. Up until now, digital signage has been largely invisible to strategic media planners because there has been no standardized way of looking at this medium and evaluating it against other media offerings.

The first stage of measuring the value of any medium is defining how big its audience is and how it breaks down demographically. Digital signage ought to be defined in a similar way, but since it's a nascent phenomenon with unique characteristics, no audience measurement standards have been developed for it yet. While advertisers and agencies are accustomed to the long-established metrics for TV, radio and print, buying digital signage space currently presents a challenge, with no uniform currency to apply to its audience.

"In this vacuum of standards, each network has been trying to describe their viewers in their own manner, essentially attempting to reinvent the wheel," Urazbaev said. "Some networks hired research firms; some conducted studies in-house. Quite frequently, venue foot traffic numbers are being passed for audience data, which causes mistrust and rejection on the part of media buyers. As a result, digital signage inventory has not been included in strategic media plans."

In the second half of 2008, the Out-of-home Video Advertising Bureau, or OVAB, published Audience Metrics Guidelines, or AMG, for digital out-of-home, or DOOH, media. The document is a product of the first collaborative effort to agree on methods of measuring digital signage audience and the resulting metrics.

AMG were developed in the course of 18 months by Sequent Partners, a renowned New York-based research firm, with active participation from the largest North American DOOH networks and endorsements by trade organizations, such as the Association of National Advertisers, or ANA, the American Association of Advertising Agencies, or AAAA, the Traffic Audit Bureau for Media Measurement Inc., or TAB, and others.

An impression occurs any time an advertiser's message is displayed.

The guidelines recommend that networks should hire reputable research companies to measure the Average Unit Audience, a currency that will be comparable to mainstream media metrics and will enable media buyers to include digital signage properties in advertisers' media plans. Researchers are encouraged to follow specific steps to establish input data and calculate the Average Unit

Audience. They must disclose their methodology by filling in an AMG-supplied form to ensure that survey results are credible.

OVAB plans to enforce adherence to the guidelines among its 38 member companies and to promote best audience measurement practices across the entire digital signage community. According to OVAB, the goal is to facilitate access to the "real" advertising budgets, not just the leftover funds usually allocated to experimental marketing or alternative media.

What is the Average Unit Audience, and how can it be measured?

The AMG document defines Average Unit Audience as "the number and type of people exposed to the media vehicle with an opportunity to see a unit of time equal to the typical advertising unit." Advertising unit here means either a content loop containing ad slots or an ad rotation cycle within a longer format program.

In order to calculate the Average Unit Audience, the following three key dimensions must be reported:

1. **Presence** — in the vehicle zone, where the vehicle (screen) is both visible and audible
2. **Notice** — evidence that the vehicle (screen) has been noticed
3. **Dwell time** — time in the vehicle (screen) zone

Once these three factors are measured and the vehicle audience is established, the Average Unit Audience can be calculated:

Average Unit Audience = Vehicle Audience x (Vehicle Zone Dwell Time / Ad Rotation Duration)

Based on the Average Unit Audience, other vital metrics could be determined, such as overall schedule impressions, overall network audience over a period of time, etc. AMG also recommends standard demographic breakouts.

It is important to stress again that in order to be accepted at the agency/media-buyer level, the surveys must be conducted by a reputable research firm, and the applied methodology must be fully disclosed.

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, 1 GRP equals 1 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. Urazbaev 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."

The level of specificity 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?

Loop length is the amount of time is takes for a loop to repeat. Loop length should be proportionate to viewer dwell time in order to optimize the opportunity to see each ad.

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 and/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 like 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 and 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, where 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.

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 by insertions of various default filler content in the slots that are not occupied by paid ads. Finally, there is the concept of the *ad unit*, which can consist of a loop of content, scheduled within which are rotating ads that come up based on a predetermined cycle or pattern.

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.

Digital signage software also allows for segmentation of the screen into various regions — analogous, for instance, to the crawling text across CNN. 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.

"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, EVP 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.

Chapter 2 Measurement and analysis for ad-supported networks

For many businesses, one of the most attractive aspects of digital signage is the ability to subsidize all or part of the investment through the sale of advertising on the screens. In the case of dedicated niche networks, advertising sales are the business.

Selling ad space on a digital sign is not for everyone. Many retailers will find that they are better off sticking to retail, rather than trying to branch out into ad sales; others blanch at the thought of content from other sources appearing alongside their carefully developed brand. But in many cases, the model is a good fit.

The growth of in-store media comes at a time when ad buyers are at a crossroads. Brands are experimenting with new media of every sort, looking for ways to staunch the bleeding caused by PVRs, ad blockers and a general consumer "tuning out" of traditional advertising.

"Media buyers are between a rock and a hard place today," said Brian Dusho of BroadSign International. "They are increasingly pressured by advertisers to research and buy new media, but doing so means spending much more time and effort for less revenue than buying TV, radio or print, which is fast and easy for them."

One common concern raised is the possibility of cannibalizing existing co-op funds — in other words, will convincing brands to advertise on digital screens just cause them to reduce the money they spend elsewhere in the store?

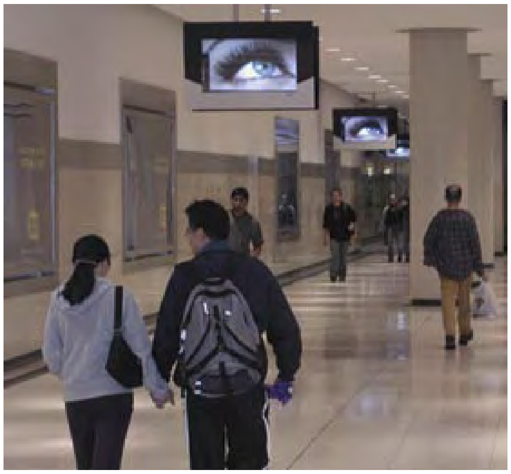
According to June Eva Peoples, vice president of business development for measurement software company DS-IQ, the answer is no.

> **"If digital signage has proven to be more effective than most other forms of advertising, why wouldn't you want to shift some of your existing co-op money over to it and sell more product?"**
>
> **— Scott Templeton, senior vice president of business development for Intellimat**

"Most of the CPG advertisers we work with bring new dollars to the medium, often from a separate bucket dedicated to experimentation with new media offerings," she said. "P&G, Unilever, Hershey and others have said publicly that they intend to expand the promotional money they spend in-store, reducing general broadcast dollars. We expect that manufacturers will bring a more rigorous cost-benefit analysis to many areas of marketing, including media spend. This should benefit in-store networks, which are measurable and have very attractive rate cards."

Scott Templeton, senior vice president of business development for Intellimat, said retailers need to totally change their thinking when it comes to co-op money.

“Retailers need a frontal lobotomy to fix how they look at this,” he said. “They are paranoid that a digital signage application may cannibalize their co-op money, yet they don’t know how much they are really getting and what percentage of their channel co-op dollars they are getting. If digital signage has proven to be more effective than most other forms of advertising, why wouldn’t you want to shift some of your existing co-op money over to it and sell more product? Selling more product with the co-op dollars you get is what gets you more co-op money next quarter or next year.”



Ad buyers are at a crossroads — and they are experimenting with new media of every sort.

Three tiers of accountability for in-store digital signage

Tier I: Proof of ad delivery — how many times was my ad served and for how long and in what markets, locations, sites, on what screens and over which period of time? This one requires elaborate proof-of-play reporting mechanisms.

Tier II: Proof of audience delivery — while my ads were served, what audience/demographics had the opportunity to see them? This metric should be delivered by third-party audience research. This is similar to measurement of impressions in TV and outdoor. The OVAB’s Audience Metrics Guidelines describe which methodology should be used so that your audience metrics would be accepted by media buyers and advertisers.

Tier III: Return on investment — this can include achieving intermediate goals such as ad recall, ad/brand awareness, purchase intent, online product inquiries and, of course, sales uplift measurement. Sales uplift is the Holy Grail of advertising that has only become possible with the advent of Internet advertising (combined with e-commerce) and properly set-up in-store digital signage networks. Sales uplift measurement requires correlation between ad campaign data and POS data.

— Nurlan Urazbaev, BroadSign International

Screen deployers that want to court media buyers need to spend some time and money doing audience research, building a comprehensive profile of who exactly will be seeing the screens.

Templeton, whose company sells ad space on floor-mounted displays, said digital signage is attractive to brands looking to spend their co-op money.

"The fact of the matter is, a digital signage network makes better use of existing co-op dollars, helps attract more dollars from existing pools and allows retailers to tap other pools of money that brands and product companies have. I have attracted brand and new product introduction money from Coke and Pepsi because I had a digital network and a proven track record, and this was incremental money the retailer would not have received without the network."

Dealing with media buyers

The ad-buying business is very different now than it was just a few years ago. While this obviously has much to do with new media, it is largely affected by one particular innovation by one particular company: Google's search marketing.

"Media buyers have lately been under pressure from advertisers to buy media that provides more accountability and higher ROI than traditional media," Dusho said. "When Google made their paid search marketing model transparent and accountable — you only pay for clickthroughs to your ad, not for impressions — both media buyers and advertisers became excited and comfortable with it and started spending more money on it."

"The No. 1 thing is audience," said Bill Gerba of WireSpring Technologies. "The ability to hit a certain target demographic, and more importantly,

What screen owners need in order to reach ad buyers

- A compelling media kit that fully describes the audience
- Third-party audience measurement studies supplied by a recognized research firm following a fully disclosed methodology
- Campaign success stories
- A list of repeat advertisers
- A competitive rate card
- Accurate proof-of-play and proof-of-performance reports

— Nurlan Urazbaev, BroadSign International

a large number of individuals in that demographic, is what media planning and buying is all about."

To that end, screen deployers that want to court media buyers need to spend some time and money doing audience research, building a comprehensive profile of who exactly will be seeing the screens. That information needs to be distilled into a compelling media kit that describes the entire value proposition of the screens at a glance. (See sidebar for more on being prepared for dealing with media buyers.)

For retailers, the potential client list is obvious: brands that are already sold in the store. However, this can create an interesting dynamic when the retailer sells competing products — for instance, a grocery store with its own private-label foods.

For instance, if a given chain sells Nabisco cookies for a net margin of $0.05 but sells an equivalent house-brand cookie with net margins of $0.25, it is in its best interest to emphasize the house brand. On the surface, this would seem to imply that courting Nabisco as an advertiser would be a bad idea.

Not so, Gerba said. "When you look at the Nabisco brand as a whole and take into consideration all of the products under its umbrella, letting them advertise in-store makes more sense, since it lends some brand authority to the store and also primes customers to notice Nabisco's other products, which might translate into incremental sales," he said.

Gerba said his company is seeing retailers experiment with advertising packages — for instance, selling a distributor space on an entire endcap,

A recent patent hints that Google may be building a delivery and purchasing mechanism for out-of-home advertising on digital screens.

which includes a screen, for a period of time. That package might include other types of in-store marketing — fliers, for instance, or a display at the store entrance — with one or more screens included in the mix.

"Think about how you communicate the total value delivered to advertisers when they place content on your network," said June Eva Peoples of DS-IQ. "The audience, who are they? What is relevant to them? How does your audience reflect demographics and behavior that might be valuable to specific advertisers? Think about how to include measurement services that develop ongoing insight about how your customers respond to the network and specific kinds of campaigns, so that advertisers are buying more than eyeballs — they are getting intelligent, behavior-based targeting."

The case for small networks

There are currently hundreds of companies operating small-to-midsize digital signage networks, many of them focused around a particular niche — healthcare waiting rooms, for instance, or elevators. These networks are often effective particularly because of their focused nature, although they have a tougher time making in-roads with large advertisers.

But smaller networks can be a tough sell for big advertising clients, who are used to buying large numbers of impressions.

"You have to understand that media buyers spend the same amount of time to plan and place a buy with a small group as a large group," said Laura Davis-Taylor of Retail Media Consulting. "You must also understand that they're working on very small margins and are often stressed and pressed for time. Yes, they want to get to the right people, but sometimes they also want the most exposure that they can get."

Even so, small networks are very attractive to brands trying to reach specific customers — for instance, the manufacturer of fishing gear would be a natural fit for an in-store network at a sporting goods or outdoors store.

Smaller networks can also serve as "test labs" for large brands. Peoples said the regional Meijer grocery chain, for instance, provides very deep analytical research to its advertisers. The network currently consists of 176 stores, making it small compared to nationwide chains like Wal-Mart and SUPERVALU, but that's precisely what makes it such a great place to try out new campaigns, messages and content.

Chapter 3 Measurement and analysis for informational and brand-driven networks

Companies often will use digital signage to enhance their customers' experience, deliver branding messages and communicate with employees — with no advertisements to be found.

Even though there is no ad buyer to report to with such a network, good measurement numbers are just as necessary. And it is wise to begin with some of the same strategies that apply to ad-driven networks — chief among them, the mandate to know your audience.

"People shopping stores are the same ones zapping out TiVo and blocking banners online," said Laura Davis-Taylor of Retail Media Consulting. In other words, if you want to effectively communicate with the people in your space, do so in a way that will not intuitively feel like an advertisement.

"The shopper is in a store," she said. "Motivate them to buy, to engage, to explore a new product, or simply make them happy. There's a lot of powerful things that can be done to add value to the shopping experience."

If you want to effectively communicate with the people in your space, do so in a way that will not intuitively feel like an advertisement.

All of the actual methods of measuring customer activity that work for ad-supported networks also work for brand-driven ones, but the data is interpreted differently. On an ad-driven network, a manager might look at the sales data for a specific product at various times of the day and compare that to the playlist to see when ads for that product ran.

For branding messages, that manager would look at specific business aspects emphasized in the digital content. For instance, suppose a sporting goods store loops a promotional spot for its free loyalty program. This playlist could be correlated with POS data on how many new signups were generated.

All of the actual methods of measuring customer activity that work for ad-supported networks also work for brand-driven ones, but the data is interpreted differently.

Here are some other examples of how data from an informational network can be read:

- A bank uses digital signage to loop through promotional spots for home equity lines, certificates of deposit or safety deposit boxes. After a month of running this particular playlist — long enough to establish benchmark data — one or more of the spots are switched out, and end-of-day sales results are compared.
- A quick-service restaurant shows combo meal specials on screens above the counter and includes some sort of customer trigger ("Mention discount code XYZ to get a dollar off this meal!"). Not only is the "coupon" data captured, but the customer is trained to look at the screen from now on.
- An automobile dealer uses digital signage to convey branding messages, emphasizing new vehicles and additional features. End-of-month sales figures can easily be correlated with the cars and features that were looped.

In addition to matters that are directly related to sales, measurement numbers can help companies refine and improve their physical space and its setup.

Traffic data can be visually mapped to show "hot spots," giving instant visual confirmation of where people are most likely to linger within the store.

If the store's signage content is compelling, red spots on the map (indicating long dwell times) will align with locations of screens, enabling store planners to push the flow of traffic to desired areas by repositioning the screens or adding new ones. On the other hand, if those red spots are not aligning with the screens, that could be a sign that the content is not resonating with customers.

Measurement numbers can help companies refine and improve their physical space and its setup. Traffic data can be visually mapped to show "hot spots," giving instant visual confirmation of where people are most likely to linger within the store.

Commentary

Retail digital signage — from niche to mainstream?

By Nurlan Urazbaev, BroadSign International

Digital signage emerged a few years ago as part of a transformation of media caused by advancements in computer and display technologies. So what is the big picture of evolving media, and how does digital signage fit into it?

The flight of dollars from TV has begun

Network television still has the largest audience and consumes the biggest piece of ad spending, but its growth has slowed down significantly in the past three to four years. The audience has been steadily shrinking and "disappearing" into fragmented digital cable TV, Internet, video on demand, DVD rentals and mobile devices.
As money follows the audience, the distribution of ad budgets is changing as well.

Mitch Oscar of Carat Digital said that the Internet, and Google Search Marketing in particular, have been attracting most of the ad dollars lost by network TV. "Internet has gone all the way, probably hit 16 billion this year, although half of it is search. Those are tremendous increases," he said.

The revived outdoor advertising has also contributed to the flight of ad money from traditional media, said Michael Hudes of Clear Channel. "As dollars have been 'fragmenting' out of traditional television, radio, newspapers and print, and the equivalent (amount of) dollars have been going to the Internet, outdoor has seen a disproportionate share of that money, given its relative size."

Mitch Oscar: Death of TV is greatly exaggerated

Although network TV's ad revenue growth has slowed down, Mitch Oscar thinks the problem is not with TV as a medium, but with the old rigid revenue model. He said most marketers are missing the fact that, despite the relative decline of the network TV audience, the actual TV viewership is on the rise.

> **"I think most advertisers right now, particularly outdoor buyers, are really interested in alternative channels — they want to find new, more targeted, more flexible ways to deliver a message out of home."**
>
> **— Michael Hudes, Clear Channel**

"When I looked up the definition of television, it said 'the retransmission of video images,'" he said. "That's the Webster definition. So I thought, wouldn't the broadband people have been clever not to say the 'online world' and the 'offline world,' but just say hey, it's 'television.' So, if you're saying, I'm watching video on my computer, I'm watching video on my mobile, I'm watching video on my TV — it's all television! So when you say television is going down, it's all about definition. And until we start working and breaking down the definition, we're having trouble trying to create our media campaigns."

Mitch Oscar said the new reality presents a challenge to the advertisers and agencies, as they have to find a way of tracking consumers' new media usage habits. *"Desperate Housewives* right now, you can watch on television, traditional, you can go to abc.com and watch it, or you can watch it on an iPod. The media agencies for the first time are evolving to say, look: Here are all the different points of contact with the consumer. Now we have to figure out our advertising plan and our creative plan so we affect the consumer in their comfort zone. So yes, we will have to be able to buy the *Desperate Housewives* cross-platform plan, because if we as advertisers think that our commercial message is most valuable in connection, in context with a show like *Desperate Housewives*, we better get there."

Where does digital signage fit in the modern media landscape?

From the media type standpoint, digital signage is a high-tech extension of outdoor/out-of-home advertising, or OOH. It has been brought to life by the realization that many types of commercial real estate can be turned into powerful, networked media space.

As the traditional media audience gets increasingly fragmented, outdoor is the only truly mass medium left, said Michael Hudes of the outdoor advertising giant Clear Channel. The conversion to the digital era will give the outdoor industry new capabilities, such as higher impact, cost-efficiency, easy targeting, planning and campaign reporting.

Real estate for digital signage has become a hot commodity for Clear Channel and other outdoor advertising companies. "Our first focus is the static-to-digital conversion of our core assets or real estate, and we're currently testing digital media across all the key aspects of our business," said Hudes. "Everything from traditional outdoor billboards to displays in our airports division, our malls division, in street furniture, in transit, on tops of our taxis, etc."

All of our experts agreed that digital signage is still a very young medium. Michael Hudes called this stage "Digital Signage 2.0," and according to him, the 1.0 version failed due to the wrong timing, high technology costs at the time and immature business concepts.

David Daniels of ABC Media Sales compared digital signage to early cable

TV in the '80s. "I think that it is very much in the same place where cable was about 20 years ago. I think we're still trying to figure out how to put it in the media plan," he said.

Both Beth Corbett (Nielsen Media Research) and David Daniels (ABC Media Sales) agreed that retail networks are driving the growth of digital signage. Retail is where the biggest networks are: PRN (Wal-Mart), In-store Broadcasting Network, Ascent Media (Accent Health, Meijer), Sign Storey, Neo Advertising, etc. Retail is where the most progress has been made in measuring the return on investment.

Who needs mass media?

With the mass audience disappearing and media fragmented, the question is: Do advertisers want mass media at all?

"The reality is, advertisers still want a big audience," said Michael Hudes. "They want the Super Bowl, they want to be advertising on *Desperate Housewives*; they still want an audience, and they're willing to pay for 'big eyeballs,' but I would question if mass does matter that much anymore. I think targetability and flexibility are really the key watchwords. I think most advertisers right now, particularly outdoor buyers, are really interested in alternative channels — they want to find new, more targeted, more flexible ways to deliver a message out of home."

In the near future, at-retail digital signage will not lead any major advertising campaigns but will be used to complement marketing efforts. It will bridge "the last 10 feet" between the consumer and a specific product, being part of an integrated campaign involving traditional media and the Internet.

Digital signage is a high-tech extension of out-of-home advertising. It has been brought to life by the realization that many types of commercial real estate can be turned into powerful, networked media space.

However, Michael Hudes of Clear Channel is confident that when digital signage networks are able to steadily prove sales uplift or ad-triggered actions, their role in the media plan will be reconsidered. "I think that is the Holy Grail. I spent X amount of dollars and moved Y product. I spent X amount of dollars, I got Y leads. I think that digital signage is well placed to do that," he added.

"We intercept people when they're moving out in the world with their wallets in their back pockets, they're thinking about spending money, they're on a plan, they have the ability to spend money," he said. "Delivering a targeted message at the right time and giving people the opportunity to walk away with a coupon on their handset or with directions to the nearest location, there's significant value in that that you can't get on other media."

David Daniels, Mitch Oscar and Michael Hudes agreed that Google Search Marketing has raised the bar for accountability standards. It has started the trend where the centuries-old pay-per-impression model now faces serious competition from the pay-for-performance model.

According to Michael Hudes, the money will continue to come from TV "until the television guys are going to figure out ways to repackage their content and sell it to advertisers in a more holistic fashion so that it's more TiVo-proof." In other words, TV will eventually recover from the pressure of new media, evolve and survive, but in the meantime, TV ad budgets will be depleted to a certain extent.

Some money will be also coming from promotional budgets, and new ad money will be increasingly allocated to digital signage as it keeps proving its value, experts said.

What are the obstacles to growth?

"I have always believed that the cost of entry is the biggest obstacle," said Beth Corbett of Nielsen New Media. "Technology is expensive, the networks are large, you have to have critical mass to really compete, and if you combine those two things, it's a formidable barrier. I think the funding is a barrier not just at the beginning, but at various points along the way."

She said lack of critical mass (of networked screens) and the fact that most networks are not homogeneous also present hurdles for media buyers.

David Daniels of ABC Media Sales said advertisers don't have budgets for digital signage. "They just don't understand the value of it. They say, we would rather spend our money on something else that's a proven media. In the retail environment, a lot of that stuff comes under merchandising, and not advertising."

"We are all competing for national ad dollars, but of all the digital signage networks, only a small percentage has a national reach at this time," said Rob Winston of Arbitron Outdoor. "Digital signage is not easy to buy. Each network is offering its own unique value proposition and must therefore be evaluated individually. The grocery network, restaurant/bar network, transit

Local advertising can be a strong driver for small digital signage networks.

network, mall network, waiting room network, etc… are all used differently and have their own merits. Learning, evaluating and deciding on all of these individual networks is hard work for advertisers.

"Digital signage faces tremendous competition," he added, "not just in the number of digital signage networks but also in the growing number of out-of-home, alternative and online media the advertiser has the option to use."

Michael Hudes of Clear Channel joined Winston and Corbett in stressing the importance of standards. "The reason why outdoor has seen significant growth is, in the industry with so many different products, a bulletin or a 30-sheet poster that you buy from Clear Channel is the exact same size and configuration that you would buy from CBS and Lamar."

To summarize, the hindrances boil down to the following:

- The cost of entry/operational costs.
- Lack of critical mass.
- Advertisers don't understand the value of digital signage.
- Network ad space is not standardized.
- Lack of measurement.

What will it take for retail digital signage to make it into media plans?

Well, it looks like another chicken-and-egg dilemma. Advertisers are reluctant to buy digital signage space because networks are not large enough, not standardized and not measured, and in turn, networks are small, not standardized and not measured because advertisers are not yet interested in pouring money into them.

The key links in the chain of obstacles seem to be the standards and measurements.

It doesn't take a rocket scientist to deduce what will happen when standards and measurement are in place: Standardized networks will be easy to measure, and measurement will facilitate the ROI calculation. With proven ROI, more advertisers will start buying digital signage ad space. The more advertising money flows into this space, the more investors will be willing to fund networks. Networks will grow, and the new ad space will enter media plans.

Several recent initiatives in retail and outdoor advertising prove that the demand for measurements has grown dramatically over the past couple of years.

A number of trade organizations and private businesses are now working to fill the gap between the perceived potential of in-store digital signage and the reluctance of media buyers to accept it until measurement and standards are in place:

- In-Store Marketing Institute in collaboration with VNU and Point of Purchase Advertising International, or POPAI, are separately developing a set of metrics to measure the effectiveness of retail digital signage.
- Nielsen Media Research has created a special division: Nielsen New Media Services, whose main focus is measurement of place-based media (Nielsen's term for what we know as digital signage).
- Outdoor Video Advertising Bureau, or OVAB, was created in early 2007 to educate advertisers about the value of the medium and to develop advertiser-friendly standards and metrics.
- Arbitron Outdoor is testing a technology to audit proof of performance of digital signage networks and will be conducting pilot audits in retail networks.
- Arbitron Outdoor has conducted a number of audience measurement studies in major retail digital signage networks in the past two to three years.
- Nielsen Media Research has conducted a number of proof-of-play audits and audience measurement studies in major retail digital signage networks in the past two to three years.
- DS-IQ (a private company) launched a service providing correlation and analysis of point-of-sale data against advertising campaign data in retail networks.

- The Outdoor Advertising Association of America in conjunction with the Traffic Audit Bureau for Media Measurement Inc., or TAB, is working on the next generation of outdoor measurement.

Beth Corbett of Nielsen Media Research thought that all the above initiatives should result in usable metrics within one to two years. Michael Hudes was confident that retail digital signage will become an established advertising medium and a legitimate part of media plans within three to five years from now.

In the meantime, local ads can help.

"I'm a drycleaner within a half a mile from this location, I just want everyone who comes through this door to know that I'm here for them, oh, and by the way, here's an offer," said Michael Hudes. "That's much more important. That's really what they (local advertisers) want — proximity. Now, of course, the accountability is important, but the national guys want a completely different set of things because, as you said, they're now viewing media through the prism of the Internet, and it's going to take a while for the industry to grow up to be standardized and focus on measurement."

The top 10 digital signage trends for 2009

By Keith Kelsen

This story was originally published Jan. 6, 2009 on DigitalSignageToday.com.

Trend #1: Content is the next main talking point for the industry

This will be a pivotal year for great content. As an industry, we now have great, proven technology to deliver messages across DOOH networks, so now what? Dare I say it? I have to! "Content is king." Why?

Since prehistoric times, as evidenced in cave paintings, people have used images, placed where others would encounter them, to communicate important information. For more than 120 years, rapid advances in technology have transformed human communication, delivering information faster and to a greater degree of relevance.

The technology that has led us to a new medium, digital signage, has become commonplace. Now, more than ever before, "the message is the medium." The content running across screens provides digital signage its moment to shine. As a new medium, digital signage needs to define its own creative approach to content.

Trend #2: Traditional broadcasters are getting into the digital signage marketplace

With the television industry facing an unprecedented downturn, manufacturers and producers of content are looking to expand and capitalize on the DOOH/digital signage industry. It is the natural evolution as a new media develops that many companies put resources into testing the market. Some jump in with both feet as they have no other alternative.

Production houses employ expert creative teams that can bring top-quality content into the world of digital signage. Some will have to play catch-up; some will leverage Web and flash skills to optimize great content for this new medium, for maximum impact and to achieve unprecedented returns. We will likely see acquisitions coming from the TV broadcasting industry, companies essentially buying their way into the market to make up for lost time in the DOOH industry, around technology and production.

Trend #3: Agencies are awaking to the power of digital signage

Many agencies are realizing that DOOH is a valuable area to explore. It is a difficult transition from traditional media to DOOH. Some agencies are prompting brands to buy into this burgeoning market. Open software platforms for the DOOH market will excel as they allow cross-network placement, helping agencies drive more comfort and scale widely across the digital signage landscape.

Agencies are also realizing that DOOH includes more than digital billboards, that it extends beyond this early digital signage incarnation. DOOH is being used to build brand networks at the shelf and in-store, to capture the consumer at the best possible time: at the point of decision.

In-store media is the new frontier for agencies looking to expand product presence and increase sales at the shelf. The good news is that the media is measurable with real sales-lift as proof. In-store media is more than just capturing "eyeballs" and branding; it is about the merchandising and selling of product — not to mention the resultant tremendous in-store associate training benefits gained at the same time.

Trend #4: Brands are shifting money to this market from traditional TV

Major brands are moving into the market, right now. Once traditional TV viewership declined, they began looking for more effective messaging. This trend began last year when a few brands bypassed their agencies and began experimenting directly with DOOH.

Building brand networks in-store at the shelf is a critical part of this strategy. For brands to survive and retain customers, they must spend money at the point of sale or risk losing customers to generic brands. Once lost, a customer is tough to win back — and expensive. This trend will grow geometrically as sales become hotly contested.

Trend #5: Cross-platform and interaction with cell phones is critical

In the past year, Bluetooth and text messaging integration passed its experimental and pilot phases. The connection and symbiotic relationship between display and cell phone will continue to grow with more deployments in 2009. Consumers are ready to utilize this technology today.

Personalizing features by offering coupons and other media on handsets will further drive sales at the shelf. Tracking these interactions to measure the success of a network will also play a part in the overall success of the campaign. Digital signage will take a front seat in this area, adding value to the entire digital communications grid.

Trend #6: Interactivity and measurement

Along with interaction with cell phones, interactive technologies will propel the industry to enhance new consumer experiences, from touchscreens to floor screens and from window touchscreens to gesture-enabled interaction. The engagement of the consumer adds tactile to visual and helps to create an emotional connection with the brand and product. As was the case with cell phones, 2009 will see more than simple small pilot projects; it will boast large-scale rollouts vying for consumer's attention, ramped up to unprecedented levels.

Measurement proves the maturity of the industry and is key in 2009. Data collected from interactive solutions and delivered upstream will give DOOH another powerful asset in the form of market intelligence and direct consumer feedback for marketers and agencies to measure the success of their campaigns.

Trend #7: Data-driven content or ad search for DOOH

As an increasing number of large networks emerge online, and the number of displays grows geometrically, creation of individual playlists that are relevant to a specific display and associated audience will become a thing of the past. Just as with Internet search engines, metadata for content and screens will ultimately be matched for the right time, place, target and behavioral attitudes. This will allow access to databases that have ad content and remove the complexities from decision-making focused upon "when," "where" and "why." This will establish the industry as leading-edge, not trailing-edge.

Trend #8: Cost of LCD and players is entering next phase of cost down

LCD screens are declining in price and have been for the past six years, a trend that will continue. Innovations on the media player side will also bring pricing down. Quality is still a significant factor and will be critical in keeping networks up and operational 24/7. Declining cost is not a substitute for reliable and scalable technology. Total investment and ROI still require a quality platform.

Trend #9: Consolidation and failures will continue

In these unprecedented economic conditions, there will be failures and consolidations in 2009. This is both good for the industry and bad. Though we may see failures undermining the integrity of the industry, the pieces will be picked up and business models changed to improve the industry overall in 2009; the prevailing economic situation will simply accelerate this evolutionary process. There will be success for companies that are established, have good business models and have the cash flow to endure. 2010 will be the year of winners in the end game, where a few companies dominate the market.

Trend #10: Growth for the industry is moderate, but positive

Notwithstanding my previous comments, industry growth will be moderate. Digital signage networks have the opportunity to reduce costs, save resources and communicate powerful messages. These are attributes that will spur continued growth as companies worldwide re-evaluate every element of their communication plans. Looking closely at the models and businesses that benefit by taking advantage of digital signage technology will be the key. Making the case to use digital signage is our job as an industry, and this will be yet another year of growth.

Keith Kelsen is executive chairman of the board of MediaTile and chair of the Content Committee for the Digital Signage Association.

Research key to providing DOOH audience metrics

By Bill Yackey

This story was originally published Dec. 18, 2008 on DigitalSignageToday.com.

Every digital out-of-home, or DOOH, network should have a study done on the demographic makeup and type of their network audience, said Bob Martin, president and CEO of LevelVision, a DOOH network known for its floor-mounted screens in college bookstores.

In the past, networks have been proving their worth to brands and ad agencies by doing commissioned audience measurement studies through firms such as OTX, Arbitron and Nielsen.

With the release of the Out-of-Home Video Advertising Bureau's, or OVAB's, Audience Measurement Guidelines at its first-annual Summit on Oct. 29, 2008, more networks are jumping on board and using the bureau's Average Unit Audience, or AUA, metric as a standard for measuring DOOH impressions.

LevelVision, a recent addition to OVAB's lineup of network members, completed an Arbitron study in early November of its network of 315 screens in college bookstores. Arbitron found that the LevelVision:College network delivers more than 20 million AUA impressions each month to an almost pure composition of the Millennial and adult 18 to 24 audience segments.

"Once networks perform a demographic study, they can break down those percentages and compositions of their audience to develop AUA impressions to provide to advertisers," Martin said. "The problem has been that people have been able to calculate CPMs for these networks, but the CPMs were based on the overall audience of the entire network, not the effectiveness of a single advertiser's campaign."

"Ad sales are not where they should be because of the disconnect in the metrics that the various networks are delivering," Martin said. "No one speaks the same language or the right language to the audience on the agency side."

As one of the founding members of OVAB's Agency Advisory Board, Martin quickly reviewed Arbitron's LevelVision network study upon arriving at the company in early September. He ensured that the methodology could estimate audience dwell time in addition to measuring traffic, thus incorporating the OVAB guidelines that suggest that presence, notice and dwell time should be accounted for.

"I think the OVAB guidelines for measurement is a huge step in terms of trying to put a stake in the ground on the language that should be spoken from any corner of the ad-buying side and from any network selling advertising space," Martin said.

Guidelines, not standards

Suzanne Alecia, president of OVAB, pointed out that the guidelines are not under "official" use by research companies Arbitron, Nielsen and OTX, but are being taken into consideration during those studies.

"The guidelines are just that. They're not strict standards at this point," Alecia said. "They essentially outline the information that you should be reporting. This information should be common across any audience study from any researcher for any network."

OVAB is working with its advisory board and members on a compliance process for the future and eventually, Alecia said, an audit process.

"We didn't want to hold back publishing the guidelines until we worked through that because we wanted to get everybody at least capturing the right data and reporting it," Alecia said. "So we're not coming out with any kind of OVAB 'seal of approval.' A lot of the member networks will need to go back out in the field to gather more data, so there's some time it will take to get all of that done."

Some of the firsts

Another network to jump on board early and bring the guidelines into its research has been Danoo, a digital entertainment network based in San Francisco. Danoo commissioned an Arbitron study to calculate the network's performance based on responses to on-screen ads about upcoming movies and TV shows. The study was intentionally performed using the AUA as an impression guideline.

The study found that 84 percent of people who reported noticing the screens verifying that they spent time watching the content. In two research studies tracking recent campaigns for the Fox Networks television shows *Fringe* and *House* Arbitron found similar levels of audience engagement. Advertisements on Danoo's network drove a 50 percent increase in aided awareness for the new show *Fringe*, and intent to view went from 7 percent to 19 percent among people watching the screen. For *House*, the ads drove a 25 percent increase in intent to watch among their audiences.

"We're a fan of the metric," said Doug Scott, Danoo's vice president of marketing. "It will help advertisers make a more apples-to-apples comparison to other media. No other medium is held to an engagement metric, so the industry needs something like this."

SeeSaw Networks claimed in October that it was "the first company to operationalize the newly released OVAB Measurement Guidelines with a rigorous network qualification process." SeeSaw, an aggregator of place-based networks, performed its own audience tests on its networks and said it plans to incorporate the OVAB Guidelines into its research.

"Our mission from the outset has been to deliver a common currency to agencies and advertisers across multiple networks, thereby providing media buyers and planners with transparency and operational excellence for every digital advertising campaign they plan and purchase," said Peter Bowen, founder and chief executive officer at SeeSaw.

Bill Yackey is the editor of DigitalSignageToday.com.

OVAB releases Audience Metrics Guidelines, sells out first Summit

By Bill Yackey

This story was originally published Oct. 30, 2008 on DigitalSignageToday.com.

In what some described as the "biggest thing to happen to the digital signage industry this year," the Out-of-Home Video Advertising Bureau, or OVAB, has launched its Audience Metrics Guidelines as part of the Bureau's first-annual and sold-out Digital Media Summit: Focus on Digital OOH in New York City.

The focus of the guidelines is a recommended currency metric, named the Average Unit Audience, which is designed to be used as a common unit of measure during discussions between networks, advertisers, researchers and agencies involved in digital out-of-home, or DOOH, media.

The guidelines and metric were announced during a keynote address by the organization's president, Suzanne Alecia, where she gave the history of the guidelines, outlined the content of the 82-page document and explained how OVAB will help implement this standard in the industry.

"The problem has been that media companies have been speaking in different languages to agencies," Alecia said. "These guidelines represent the first iteration of establishing the necessary data for the out-of-home video advertising industry to achieve ROI that effectively competes with more traditional media."

She also said that the Average Unit Audience metric will hopefully allow for audience measurement in all out-of-home video advertising to be considered by agencies in the same way as television, Internet and radio.

"The metric will help bring together clients and agencies," said Mike DiFranza, president of Captivate Network and chairman of OVAB. "The challenge has been that we have all been tracking this in a different way. The guidelines will improve overall industry communication."

"A more accountable medium"

Average Unit Audience is described in the guidelines as the number and type of people exposed to the media vehicle (screen) with an opportunity to see a unit of time equal to a network's typical advertising unit. The metric is based on three key dimensions of the networks:

1. **Presence** — people physically in the vehicle zone, where the screen is both visible and, if appropriate, audible
2. **Notice** — evidence that the screen has been noticed by those people

3. **Dwell time** — amount of time spent in the vehicle zone

The result is a number of Average Unit Impressions, which Alecia said are comparable to C3 numbers (average commercial minute ratings, as opposed to program ratings) in television, click-thru and page views online and readership for print.

"This metric is making digital out-of-home a more accountable medium," said Andy Batkin, CEO of ProLink Media and co-chair of the event. "We're making it easier for advertisers to buy our media."

10 months in the making

Work on the guidelines began in January 2008 and many DOOH-focused organizations were consulted in the process, including all 35 OVAB member networks, 17 third-party research providers, Sequent Partners, the OVAB Agency Advisory Board and the AAAA's Media Research Committee. As for the future of the guidelines, Alecia said that in the coming months OVAB will continue to meet with all major media-planning and buying agencies to inform them about the guidelines and the new audience metric, and assist those groups in implementing them into the digital ad buying process.

"This couldn't be a better time for the release of the guidelines," said Francois M. De Gaspé Beaubien, chairman of Zoom Media and co-chair of the Digital Media Summit. "OVAB is working to meet the needs of advertisers and agencies at a time when budgets are under constraint."

Bill Yackey is the editor of DigitalSignageToday.com.

The psychology of digital signage

By David Drain

This story was originally published Nov. 27, 2007 on DigitalSignageToday.com.

At the recent In-Store Marketing Expo, I attended a session called “Measuring and Continuously Improving Digital Sign Network ROI.” The presenters were Brian Brooks and Kelly Canavan of 3M.

Brooks, with PhDs in cognitive psychology and neuroscience, has taken his knowledge of how the brain works and applied it to measuring the effectiveness of digital signage. To make his case, Brooks laid the groundwork by reporting on experiments that were done to measure what is going on at the brain level as it relates to branding.

In a blind taste test, consumers were asked to describe the Coke or Pepsi they were given versus a generic brand. What they discovered is that the taste-testers thought that the Coke or Pepsi tasted better than the generic brand even though in fact the “generic” was really Coke or Pepsi. “Branding doesn’t just change our emotional experience, but literally our physical reaction,” he said.

Brooks and 3M claimed to have developed a method, using “vision science technologies,” to engineer a physical environment to achieve the desired results. In other words, 3M said it can take what it’s learned in the lab — with humans wearing special goggles detecting eye movement — and apply it to real environments without humans and goggles.

As an example, Brooks showed a picture of a typical big-box store and with numbers, showed the first four places the eyes would look. In this case, to a static sign on a table, then on to other static signage. The next picture showed the same scene; only this time, a digital sign was added. Since the digital sign had a brown color on the page, the eye traveled to other places first and the digital sign last. But once the color on the digital sign was changed to yellow, the eye went to the sign first.

As Brooks explained the science, Canavan interjected or interpreted how it was relevant to the business world. When we walk into a store, “it’s not that we’re trying to decide what to look at, we’re trying to decide what to ignore,” explained Canavan.

Canavan went on to present case studies of hotel and foodservice environments that benefited from the implementation of digital signage. In the first pilot, a hotel was looking to increase sales at its restaurants. Sales increased 15 to 35 percent per day when digital signage content was used to promote the restaurants.

In the second pilot, the objective was to drive foot traffic to a specific station in a corporate cafeteria. When that station and a particular product were featured on digital signs, 27.8 percent more consumers went to the desired station, and sales of the featured product increased five times.

With these vision science principles and tools, 3M asserted you can determine the best sign location and creative content for those screens. By conducting experiments in the field and analyzing the data, Canavan contended, you can determine the cause-and-effect relationships and make methodical adjustments for improvement.

We all know there's an art to effective marketing, but now there's a little more science to it.

David Drain is the executive director of the Digital Signage Association.