

Video Analytics for Digital Signage Deployments

Three key insights from resulting data can help digital signage operators gauge the effectiveness of marketing campaigns.

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Marketing wisdom says that if a campaign delivers the right message to the right people, assuming they are in the right environment at the right time, success will result.

Determining whether the formula worked may not be so easy. Gauging effectiveness traditionally entails poring over sales figures, interviewing consumers and old-fashioned observation, all of which can be tedious, time consuming and, ultimately, inaccurate. The difficulty increases when marketers try to isolate particular components of a strategy, or the efficacy of a certain technology.

Those challenges routinely face stakeholders in digital signage deployments. The executive considering the cost and complexity of an installation eventually needs to be assured there is payoff in increased sales, customer experience or both. Marketers who place ads on networks of screens want to know how many people are seeing them, and even what the demographics are of those transient audiences.

The challenge is not without a solution. Recently, the science of video analytics has emerged to provide the means to acquire such data through sophisticated hardware and software applications.

Various forms of analytics exist, breaking down consumer activity and behavior. The video version gives businesses a more detailed look at individuals who come in contact with digital signage. Through cameras installed on and integrated into monitors, software can show everything from the length of time someone watches an ad or message to exactly who watches, and correlate the effectiveness of those spots.

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Analytics provide pivotal information that helps signage operators shape campaigns based on three key sectors: consumer interest, targeted ads and quantifying sales.

Gauging consumer interest

Deployers don't want an ad or message merely to be seen. They want it to be relevant. Otherwise, if consumers pass by unfazed by what shows on a screen, they're wasting time and money.

Video analytics distinguishes how much attention people put toward digital signage. As someone approaches a monitor, cameras focus in, capturing a digitized impression of the signage viewer. Actual images are not used, thus keeping data anonymous.

Through those impressions, the technology is able to discern a person's gender, race, approximate age and, based on the contours of the person's face and positioning, just how long he actually looks at the screen. In 2005, The Wall Street Journal reported that studies done in retail determined shoppers' First Moment of Truth to be the first three to seven seconds a shopper notices an item on a store shelf; most operators consider viewership of three to seven seconds to be effective, says Rajnish Maini, Intel's marketing manager for digital signage.

"This way they can tell if it was too confusing, if it wasn't good enough or if the consumer didn't get enough information," Maini said.

Sometimes, however, so much data is produced that no single understanding surfaces. Then, it is incumbent upon businesses to filter information and figure out what is important and what is not, says Alex Richardson, a founding board member of the Digital Signage Association.

"The key lessons you learned and the revisions to the campaign are the benefits of your analytics," he said.



Tracking data to know how much attention people are paying to digital signage can help a company create and disseminate effective advertising.

Targeted ads and messages

Feedback produced by analytical impressions empowers businesses to make a host of changes on the fly. For instance, they can spot immediately what messages or ads are effective with customers, going so far as to compare sales figures of certain products based on the times of the day and frequency of the ads for the respective item.

It used to be that businesses had to wait days or weeks for such data. But now, they can use analytical reports as the basis for reconfiguring store designs or repositioning products that cater to the interest of their consumers. They also can determine specifics about their clientele at various periods of the sales day and target ads and messages to them regarding certain products, services or promotions.

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For example, one of the restaurants in Tokyo uses video analytics to drum up business during slow periods, Maini says. With a digital sign positioned in a nearby train terminal so commuters can see it as they disembark, the eatery knows when people are watching the sign and can remotely change the display to offer coupons at certain points and increase traffic.

“Two hours later, they will change the coupon and not offer that much off because they’re getting traffic anyway,” Maini said.

Quantifying sales

Analytical programming isn’t simply tallying sales figures, but also giving information to signage operators to allow them to go beyond straightforward numbers. They can use figures to better mark slower and peak sales periods, and thus adjust staff accordingly.

The ability for businesses to use analytics to quantify sales in greater detail, such as who is buying what and when, is just the sort of enticement advertisers need to decide whether to invest in the growing digital market. As it stands now, advertisers soak just 1 percent of the \$500 billion spent annually for promotions into digital signage, Maini says.

“They’re watching right now, and they’re looking for proof” that campaigns work, he says. Digital signage “is a big change, from advertisers to network operators. There is value to each player.”

Some of those in the digital signage industry believe the use of analytics through such media is in its infancy. Where they see it providing the greatest impact is through optimization, using measurements via analytics to further build all facets of business.

“At the end of the day, the ultimate judge (of success) in engagement is sales lift,” said Tom Opdycke, president and CEO of Seattle-based DS-IQ. “That’s the reason why anyone is going to invest in a network. They’re trying to win that first moment of truth with a shopper and convert.

“Those that really can invest and understand how to harness the power of this medium ... they can get a competitive advantage.”

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