

## Calculating the Value of a Digital-Display Ad

Digital displays' effective CPM appeals to tight budgets.

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Recently, I was speaking to associates about the lessons I've learned in the digital-billboard business. I was pontificating ad nauseam about the revenue-generating potential of on-premise color displays when a wide-eyed young friend asked a very practical question that stopped me in my tracks: "How do you price the advertising?"

This very simple, obvious question probably explains why many business owners hesitate to explore digital displays. If a salesperson doesn't understand the ad's value, then how does he or she sell it?

The reality is, my young associate, who, by the way, makes his living selling digital displays, knows far less about the display's use than its technical aspects. Ouch. How did we get to this point? We've been so entrenched with nit ratings, gamma settings and pixel sharing's relative merits we've forgotten entirely why our customers purchase the display.

I realize display technology's high demand has so spoiled us that we've focused our sales efforts on measuring technological features against our competition, with little regard for the technology's actual usage.

This revelation arrived at a difficult economic time when clients want to maximize each media dollar. Those who understand advertising's value and the medium's power can tell a very compelling story about display advertising's effectiveness, compared to other advertising options.



Those who understand how to measure the effectiveness of a digital billboard can stress how much value the medium delivers, relative to other media.

## Digital displays' CPM

We're currently faced with media dilution, when unprecedented media categories, and more options in each category, exist. Formerly, a business chose between four TV channels, five radio stations, the newspaper and direct mail. The challenge was to balance the mix for maximum exposure.

TV now offers hundreds of stations. Satellite options have infiltrated radio's domain. Unsolicited specialty "magazines" assault us at home. The Internet has diminished newspaper circulation. Such changes have complicated exposure options for a company's products and services.

How does the digital display compare in this cluttered, media-advertising world? The previously mentioned media are broad-based, meaning they blanket a wide, geographic area. However, on-premise digital displays are place-based, or targeted specifically at the daily passersby. A digital display's flexible technology can serve as an onsite, visual broadcast center to deliver an endless stream of timely messages tailored to the particular audience.

I told my young associates this differentiation is critical when measuring the digital sign against other media. You can't simply compare audience size. For a locally based business operator, an ad message communicated to an audience that passes directly in front of the business is much more valuable than an audience 30 miles away.

Media's relative cost is frequently compared by cost per thousand, or CPM, the amount spent to reach 1,000 people. Calculating that cost for traditional media is much simpler than with digital advertising.

If a newspaper, for example, has a circulation of 300,000 households, and the paper is read by 1.4 people per household, the gross audience is 420,000 exposures. If the advertisement costs \$8,500, then the CPM is \$20.24.

To calculate a digital sign's effectiveness, obtain from city, county or state department of transportation (DOT) the number of people who travel past the business daily. For many businesses, the audience is sizable, because the location specifically accesses the same people who would see the sign.

The Traffic Audit Bureau, which measures traffic-audience size for the out-of-home industry, cites an average of 1.35 people per car. Therefore, the DOT information, multiplied by 1.35, yields the total size of the daily audience.

To calculate the audience for a particular ad, determine the average exposure time in seconds, the number of advertisements that sequence on the display, and each advertisement's display time. The available exposure time can be calculated by measuring the distance from the first point at which the sign is readable. Secondarily, you will need the speed limit for the particular location.

For example, a hypothetical, 10 x 20-ft., double-faced digital display is legible from 750 ft. away on a thoroughfare with a 30-mph speed limit and a traffic count of 100,000 cars per day.

At 30 mph, a car moves one-half mile per minute. Because a mile equals 5,280 ft., a car moving at 30 mph drives 2,640 ft. in 60 seconds. After you divide 750 by 2,640, which equals 0.28, multiply 0.28 by 60 seconds to determine the number of seconds in which all of the sign's messages can be viewed. Therefore, this particular sign has an available viewing time of roughly 17 seconds.

If this sign displays three ads, and each ad is displayed between five and six seconds, each advertisement can claim 100% of the available viewership.

The total daily exposure for our hypothetical sign is 135,000 people per day. Because most digital-sign advertising is sold on a monthly basis, the total monthly exposure will be 4.05 million.

To calculate the CPM, simply divide the cost of the advertising by 4,050 (the number of thousands in 4,050,000). Therefore, if the cost per month to advertise on this display is \$2,000, the CPM is \$2,000 divided by 4,050, or a 4-cent-CPM exposure rate.

To put this into perspective, compare the average CPM for outdoor advertising, radio, magazines, TV and newspapers for the top-100 markets, as provided by Media Dynamics Inc. for the year 2005 (Table 1). The cost of our hypothetical digital ad is less than one-third of what's charged for a traditional, outdoor-advertising display. The newspaper ad costs 50 times more than our hypothetical digital ad, and the exposure is spread over potentially hundreds of square miles.

### Table 1: Average CPM for Various Media

Adults 18+ (Calendar Year 2005), based on the top 100 U.S. markets. Source: SQAD (Winter 2005), Media Dynamics Inc.

Media	Men	Women	Adults
<b>Outdoor</b>			
30-sheet Posters	\$3.32	\$4.02	\$1.71
Rotary Bulletins	\$5.61	\$6.80	\$3.07
<b>Radio</b>			
:30 Network	\$10.85	\$9.05	
:30 Spot	\$11.95	\$11.55	
<b>Magazines</b>			
Four-color Page			
Newsweeklies	\$11.76		
Women's Fashion		\$11.91	
<b>Television</b>			
:30 Early Morning Network	\$19.15	\$12.05	
:30 Primetime Network	\$29.95	\$23.20	
:30 Early News Network	\$14.25	\$11.15	
:30 Late Fringe Network	\$29.75	\$25.65	
:30 Primetime Cable	\$10.85	\$10.55	
<b>Newspapers</b>			
1/3 page B & W	\$25.65	\$24.25	

The CPM, which is measured in terms the advertising community understands, provides legitimacy to digital advertising's cost. You can explain the extremely low CPM and that each thousand exposures measured is within feet of the product being offered for sale.

When I first learned these formulae, sellers of digital displays had to overcome older technology's limitations. Regardless of CPM, the advertising community deemed digital signs displayed an unacceptable image.

Today, however, digital billboard proliferate, and retail chains commonly use digital-ad networks. Agencies are creating departments that specialize in the new medium. The advertising community no longer claims the image is unsuitable. The same technology used for digital billboards is offered for on-premise signs.

Because the technology is now accepted as a legitimate advertising medium, sellers of the technology must understand its value, relative to other media.