

Economic Feasibility and Return on Investment of digital signs

by Gregory Young



Off-Premise, Non-Accessory Billboards

In addition to their environmental impacts, we looked into the profitability of digital billboards, and received mixed results. Although LEDs are expensive, manufacturers frequently claim that cost is recouped over time and in reduced energy usage and maintenance costs. For off-premise advertising, the initial investment in a digital sign is large---\$250,000-\$500,000 (Goldstein, 2008)---but future overhead for the advertising company is low, as graphics can be remotely changed and replaced. Often, they are also able to rent out the advertising space for a higher premium than on static billboards.

Space on a digital billboard rents at the same rate, or higher, as a comparably sized static billboard, even though each ad will be featured only intermittently, sharing space with up to eight other advertisements in the rotating lineup. This means huge profit increases for the outdoor advertising companies, and a quick return on investment. Digital billboards provide operators with an average of \$14,000 per month in rent (typically from multiple advertisers), compared with \$1,000 to \$2,000 per month for traditional billboards, which serve only one advertiser (Goldstein, 2008).¹ Total revenue from the outdoor digital signage equipment market in the United States, including hardware, software, installation, and maintenance, grew by about 33% in 2009, a trend that is expected to continue. The Federal Highway Administration estimates that in 1996 there were over 400,000 billboards on federally controlled roads, which generated revenues in excess of \$1.96 billion (Schueller, n.d.).

On-Premise, Accessory Signs

On-premise advertising appears to be less cost-effective. The initial cost of installing a digital signage network has not been recouped by many of the operators interviewed, to say nothing of the dramatic increase in energy expenditures when compared to static signage (Noventri, 2010). Additionally, the burden of providing frequently-changing content falls on the operator; many small businesses simply do not have the creative staff or technical knowledge to create changeable graphic displays.

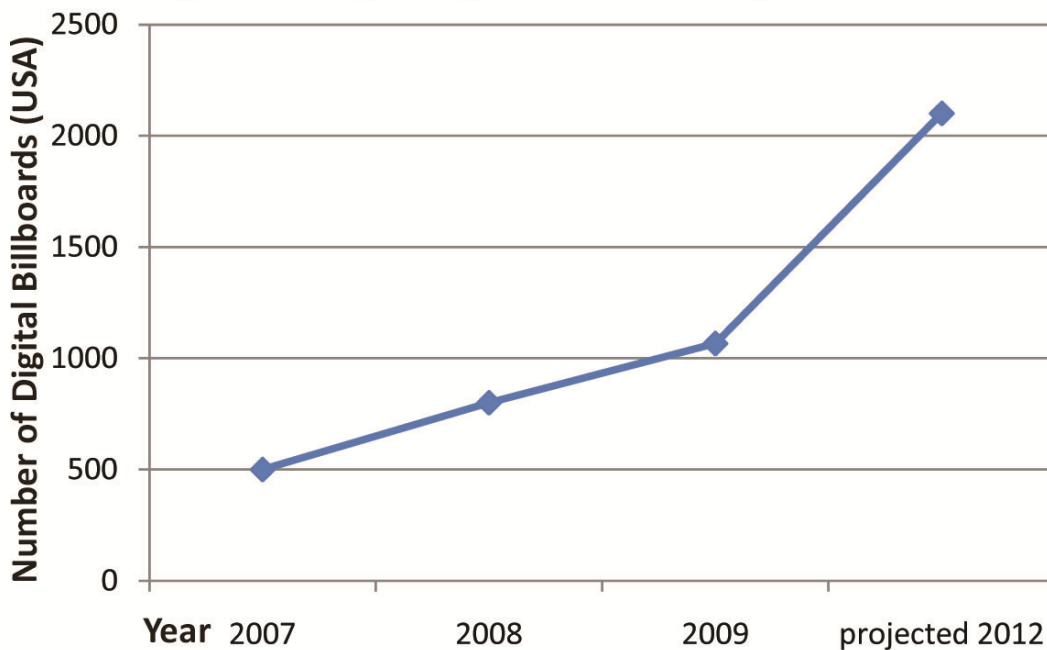
Despite uncertain profitability for on-premise signs, market statistics and lay observation point to the growing popularity of digital signage, both off-premise and on-premise. In the absence of guaranteed profits, their chief selling point is their uniqueness---the fact that they “stand out.” However, as this type of advertising becomes more mainstream, and the market becomes saturated, how long can simple novelty justify its high financial and environmental costs?

¹ Sales prices reflect market averages in Bangor, PA. Rates may vary with location.

Current Trends

How big of a problem do unregulated energy consumption and luminance levels pose? Right now, only a small fraction of American outdoor advertising is digital. This number is growing, however, and the trend shows no sign of slowing. Rapidly-dropping prices for large LED screens have led to a growing increase in the number of digital signage installations. Today, there are nearly 800 of these digital billboards in the U.S. It's a small number compared with 450,000 traditional billboards across the country, but it's growing fast. The Outdoor Advertising Association of America, an industry trade group, projects that the number of digital billboards in the U.S. will expand at a rate of several hundred per year (Goldstein, 2008). Clear Channel Outdoor Holdings, an industry powerhouse, says it is expanding its digital billboard business in markets such as Los Angeles, Chicago and Philadelphia (Hau, 2007). Philadelphia is home to an estimated 1,800 billboards, including a handful of digital signs---the effects of widespread conversion from static to digital would raise significant safety and environmental issues.

Digital Signage: Growing Presence



Rapid Growth: The number of digital billboards is increasing at an increasing rate in the US, as evidenced by the above graph. On-premise digital signage has shown an even more dramatic increase in popularity (Urazbaev, 2009).

