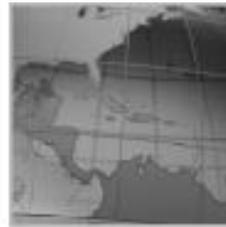


# Analysis



Production Printing & Media



December 2013

## Wide Format Print vs. Digital Display – Part 1

*An Exploration into Print Signage vs. Digital Signage Display*

### Service Area

Wide Format Printing

[Comments or Questions?](#)

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## Executive Summary

Revenue from digital display signage systems is expected to surpass \$14 billion in 2014, and growth projections for the digital signage market range from the single-digits to more than 40% per year over the next few years. Some advertisers have embraced digital display signage as way to communicate frequently changed marketing messages. The most compelling feature of digital display signage solutions is that it allows for a much greater level of intelligence to be applied to promotional messaging.

With those benefits and the kind of growth numbers digital display signage is experiencing, the question arises; what impact will digital displays have on wide format signage and graphics? If the use of digital displays replaces digitally printed signage and graphics, this would obviously have an impact on the demand for wide format printing equipment.

For their part, some print service providers (PSPs) and service provider networks in the wide format signage and graphics market are now developing strategies to participate in the digital signage market, which they see as an extension of the sign business. Even some of the notable wide format system vendors (e.g., Roland DGA, EFI, HP, 3M) and distributors (Synnex) are developing tools and tactics that will help their core customers take advantage of the digital display signage market opportunity.

In past InfoTrends research, wide format PSPs have been asked when, if ever, they expect digital display signage to impact their wide format printing business. The data shows that there was more of an expectation that digital signage would impact the wide format business in the past than there is now. Furthermore, InfoTrends has found that many advertising buyers that buy wide format signage and graphics never even considered digital display signage.

This analysis considers recent research to develop a position on how digital signage will affect the printed signage market in the next five to ten years.

## Key Findings

- Digital signage is a growth market that is being fuelled by advertisers' interest in targeting messages specific to the viewer. As such, the digital display market provides compelling benefits to some types of promotional messaging.
- InfoTrends believes one of the challenges that purveyors of digital signage systems have is the ability to create and present "in real-time" content that will apply to the greatest number of viewers.
- There are elements of the printed signage business, such as point-of-purchase graphics and backlit signage, that PSPs report are already being influenced by digital signage. Nevertheless, there are elements of the print market that may never be influenced by digital displays, such as vehicle wraps and interior wall coverings.

- Today, InfoTrends believes that digital signage systems most often supplement, not replace, digitally printed signage. Nevertheless, the infrastructure to implement digital signage systems across a wide range of industries is being created that will have an effect on some of the key applications within digital printing over the next ten years.
- Just as digital display technology threatens to reduce and replace digitally printed signage, the use of location-based communication and mobile device technology threatens to diminish the need for signage-based infrastructure.

### Recommendations

- PSPs that want to grow faster than the overall signage and graphics market should invest in their IT capacity to play a role in the digital display and mobile communications market.
- Some of the aforementioned print-centric signage and graphics equipment and supplies manufacturers (e.g., 3M and HP) have the resources and multiple business lines needed to be able to simultaneously stay at the top of their wide format business and develop completely separate technologies, such as display technology, facial recognition technology, eye-tracking technology, that can be applied to the signage market. Others, such as Roland and EFI, have partnered with technology suppliers to provide tools that create a pathway into data-driven signage and graphics solutions.

### Introduction

Digital signage is a market that is rapidly growing and expanding. Allowing for up to the minute data and rapid changeovers, digital signage is a tempting switch from traditional printed signage. Nevertheless, many of the PSPs that have been surveyed have reported over time they are less and less worried about digital signage affecting their wide format printing businesses.

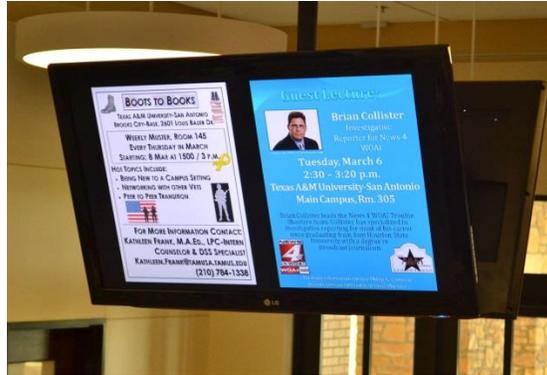
This is the first of a two-part analysis that presents some key findings from recent research and InfoTrends' opinions on how these technologies will interplay in the future. Part two will add in the economic considerations that advertisers, retailers, and distributors have to consider when examining digital display signage and digitally printed signage options.

### Digital Signage vs. Print Signage

As digital signage grows, it is easy to see how there is concern that digital signage could rapidly replace printed signage. Messages on digital displays can be modified based on the time of day or the demographic profile of the viewer. A specific call to action can be designed for the perceived demographics of the people that would be viewing the signs. Printed signage and graphics cannot provide that kind of dynamic messaging. Nevertheless, digital and print signage has their place, with the execution of each technology requiring a specific skill set.

Currently, digital signage remains a more expensive up-front investment. Therefore, for smaller brands, such an investment into their marketing spend is still out of reach. Printed signage is more cost effective for an initial investment, but printed signage still runs the risk of falling victim to human error. For example, a retail chain distributes printed signage to its stores every month and employees do not switch out promotional material in a timely fashion; in a case such as this, digital signage may be more manageable.

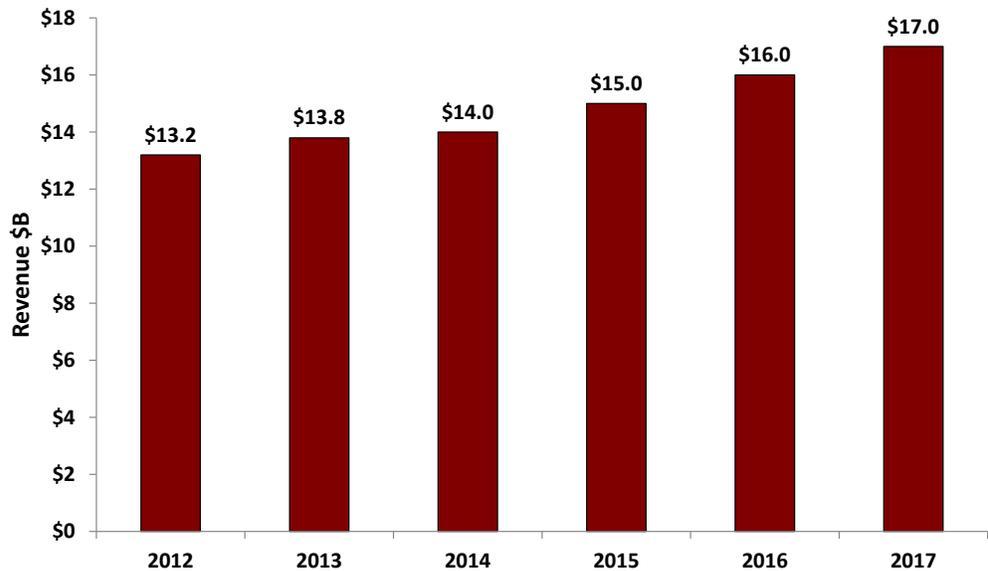
**Figure 1: Digital Display Signage**



**Trajectory**

According to IHS Inc., the revenue from digital signage systems will grow from \$13.2 billion in 2012 to over \$17.0 billion by 2017, which calculates to a five-year compound annual growth rate of around 5.3%. The company suggests that the use of real-time analytics is one of the primary drivers of digital signage investments because advertisers want to be able to tailor their messaging as much as possible based on the viewer.

**Figure 2: Worldwide Digital Signage System Revenue (\$B)**



Source: HIS Inc.

Source: IHS Inc.

It is interesting that many in the digital signage market indicate that this is a business that is still in its “infancy”—yet the projected annual growth rate is just over 5%, which would suggest a much more mature market. In addition, if the digital signage market is valued at over \$13 billion, that revenue figure is not advertising revenue—it is revenue from the sale of hardware, software, and networking tools. Therefore, that is a big market already.

### Comparing Digital Display Signage to Digitally Printed Signage

Digital signage is tempting for brand advertisers because of the control that is given for real-time updates for marketing messages, but it requires a heavy amount of technical knowledge on the part of the service providers. At a beginning level, a brand could easily purchase a small digital monitor for stagnant images to be scrolled through. Without using any of the benefits of digital signage, however, a printed display could be just as (if not more) effective. Comparing digital and print signage is the key to better understanding when to use each technology. Furthermore, the more a PSP understands about the skill sets needed to develop a digital signage section of their business, the easier it is for them to make an informed decision on whether or not to take the plunge to digital signage. The Table below is an attempt to further clarify the differences between digital and print signage.

**Table 1: Comparison of Digital and Print Signage**

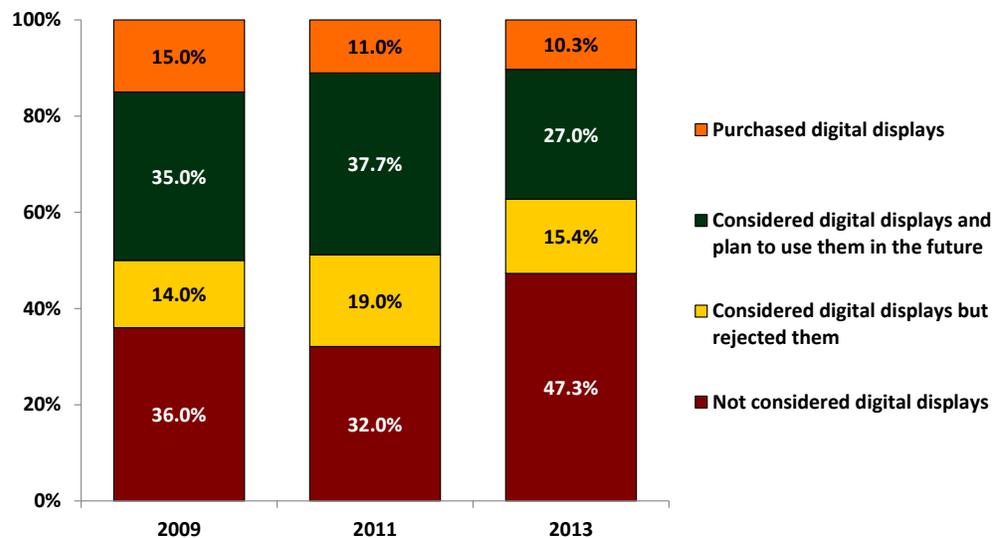
Digital Signage	Print
<p><b>Pros</b></p> <ul style="list-style-type: none"> <li>• High level interactivity is possible</li> <li>• Ease of centralized control &amp; management</li> <li>• Wait warping &amp; Dayparting</li> <li>• More messages</li> <li>• More senses (e.g., audio, visual)</li> </ul> <p><b>Cons</b></p> <ul style="list-style-type: none"> <li>• Onus is on to create compelling content</li> <li>• Best used for advertisements that require live data that changes frequently</li> <li>• Can be programmed to include scrolling messages, video, and animation</li> <li>• Requires knowledge of signage installation, computer networking, and IT competencies</li> <li>• High maintenance required for screens</li> <li>• Planning required</li> <li>• No power, no messages</li> <li>• Higher upfront cost for customer</li> <li>• One time set up fee</li> </ul>	<p><b>Pros</b></p> <ul style="list-style-type: none"> <li>• Simple content</li> <li>• Proven ROI</li> <li>• No power, no problem</li> <li>• Limited start-up costs</li> <li>• Simple management</li> </ul> <p><b>Cons</b></p> <ul style="list-style-type: none"> <li>• Ideal for advertisements that will change with frequency, but does not require live data incorporated into marketing message</li> <li>• Limited interactivity</li> <li>• Requires knowledge of wide format printing technologies and signage installation</li> <li>• Less upfront cost to customer</li> <li>• Multiple set up fees possible</li> <li>• Challenge in central control of brand messaging</li> <li>• Tight supply chain</li> </ul>

There are several developments in the printed signage world that attempt to bridge the gap between what digital signage offers and what digitally printed signage can offer. Examples of this include SmartSign Analytics, a product offered by EFI, which uses camera technology and software that identifies not only how many people viewed a sign, but also the demographic profile of the people that view the sign and for how long they view it. Understanding these key elements of a visual communication helps sign producers report on the return on investment (ROI) of their signage, as well as provides some guidance on the development of creative design. Another example of how the print and display media can connect is the use of a digital sign that is surrounded by more traditionally printed signage.

While the digital signage market is clearly growing, the question remains about what the impact of the growth will be on the printed signage market. For marketers, digital display signage is still relatively new and techniques for measuring the effectiveness of digital display advertising are immature. InfoTrends' research indicates that advertisers have been somewhat slow to shift advertising dollars away from printed signage and graphics towards digital display signage. In InfoTrends' recent *Wide Format Printing: Critical Element in the Communications Mix* study, hundreds of wide format print buyers were surveyed about their use of digital display signage. As the Figure shows, 47% of marketers have not even considered digital display signage, while 15% considered it, but rejected it. The Figure also shows that the percentage of buyers that have actually invested in digital signage has declined since these surveys have been executed.

**Figure 3: Digital Signage Usage by Marketers**

Q: Have you considered using, or are you now using, digital displays instead of wide format printed graphics?

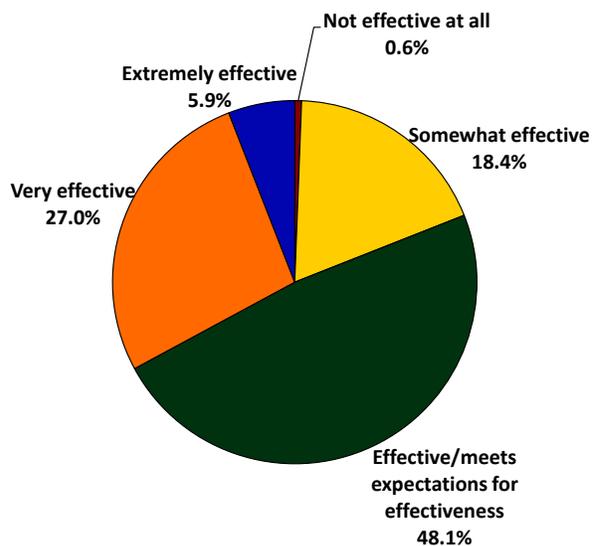


Sources: *Wide Format Printing: Critical Element in the Communications Mix*, InfoTrends 2013  
*Who Buys Wide Format*, InfoTrends 2011  
*Who Buys Wide Format*, InfoTrends 2009

## Effectiveness

The main goal of signage and graphics is to visually communicate promotional messages to influence consumer behavior or to improve brand recognition, and to do so at a reasonable price. Many retailers and consumer-packaged goods companies have their promotional and merchandising campaigns connected to their point-of-sale information in a well-established process; part of that process is understanding the best location and design of promotional materials. New tools, such as digital signage, require the disruption of those systems, which may seem unnecessary when advertisers perceive current processes as effective (which they do). Over 99% of the wide format print buyers surveyed by InfoTrends reported that printed signage and graphics are at least somewhat effective and over 80% reporting that printed signage is “effective,” “very effective,” or “extremely effective.”

**Figure 4: Effectiveness of Wide Format in Meeting Marketing Goals**



N = 526 Respondents

Source: *Wide Format Printing: Critical Element in the Communications Mix*, InfoTrends 2013

### InfoTrends' Opinion

It is clear that digital signage and printed signage mostly co-exist today, and there has not been a huge impact on the printed signage and graphics market due to the growth of digital signage from the perspective of signage and graphics providers. Nevertheless, digital display advertising has emerged out of the need to present more relevant promotional messages to different viewers at different times. Digital signage and print signage work best when used together. Print signage with digital signage helps to continue to drive marketing messages to prospective consumers.

While marketers are still investing in printed signage, as marketing spend increasingly goes towards digital mediums, PSPs cannot continue to ignore digital signage completely. Digital display signage is a growth market and is a viable new service opportunity for PSPs willing to learn about what these systems are comprised of and how to overcome the learning curve of offering an electronic-based service. Distributors and manufacturers in the wide format digital print market often have products and programs that can help PSPs explore options for offering this service.

InfoTrends believes that the adoption of digital signage will lag behind other marketing techniques due to the complexity of the business model, the lack of the ability to reliably measure effectiveness of digital display advertising especially at retail, and the shift of marketing spend toward other digital channels, such as social media and mobile advertising.

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