

HIGH-END UV FLATBEDS

and the Changing Dynamics of In-Store Marketing

The use of screen-printing equipment for P-O-P and retail graphics declines as orders for shorter runs of more customized materials continue to rise.

Eileen Fritsch



More retailers are incorporating printed graphics into store display windows as the definition of P-O-P continues to expand. *Courtesy of The Metropolitan Museum of Art.*

It's hard to believe that it's only been about 15 years since the first flatbed inkjet printers to use UV-curable inks hit the market. So much has changed since 2000, both for firms that started out as screen printers and their clients in retailing and brand marketing.

Those first flatbeds were primitive by today's standards. But they did open the door for large-format graphics firms, commercial offset printers, and others to compete with screen printers for short runs of large-format graphics on rigid, display-ready materials. Now, the throughput speeds and print quality of high-end digital flatbeds have advanced to the point where they have become economically viable options for producing longer runs of high-quality large-format graphics for P-O-P signage and retail displays.

According to SGIA survey data, about 98 percent of the association's members who started out in screen printing now use digital technology, and some have retired their screen-printing equipment altogether. "The primary driver has been the low set-up costs for shorter-run work," says Ford Bowers, general manager of the graphics center for the Miller Zell in-store marketing firm. "The economies of digital print are too attractive to pass up."

Scott Crosby, owner of Holland & Crosby, a P-O-P and retail-signage production company, says, "Screen printers are looking at run length, number of colors, and lead time to determine where the screen-versus-digital breakeven point occurs." Depending on which digital flatbed press you buy (and how automated your prepress, printing, and finishing



Increasingly, brand marketers favor printed displays that engage viewers with the product, such as the interactive LCD screen featured in this window display.

operations become), it can be more cost-effective to digitally print jobs of 500, 1000, or even 2000 large-format sheets than it is to set the job up to run on a screen press. The cost advantages of highly automated digital workflows will become even greater as labor and material costs rise.

Knowing the breakeven point for digital printing matters because customer expectations are continuing to evolve. Today, brand marketers and retailers understand that digital printing can help them respond to ongoing shifts in how consumers select and purchase products. According to Bowers, the rapid improvements in the speed and quality of digital printing equipment have changed the ordering habits of many print buyers. Today, retailers are seeking increasingly shorter runs, lower inventory quantities, and the ability to provide more regionalized offerings. Instead of sending an identical kit of graphics to each store in a retail chain, some buyers are reducing waste by sending kits customized to fit the physical configurations of individual store layouts.

Oriol Gasch, HP's director of large-format graphics, Americas, agrees

that the demand for shorter runs of more versioned and variable content is helping to drive the conversion from analog to digital printing. But he believes the transition is also being driven by the development of new applications and the availability of more productive, cost-effective, and environmentally friendly digital flatbed presses with higher image quality.

"In the past three years, we have seen a substantial number of our customers replace screen-printing equipment with high-end digital flatbeds and decommission or sell their screen-printing equipment," says Gasch. Crosby agrees that digital flatbed presses are no longer regarded as "complementary" to screen-printing equipment. His company was among the first in North America to switch completely from screen to inkjet seven years ago, and, over the past two to three years, the trend has accelerated.

When you examine some of the massive changes occurring in retailing and brand marketing, it's easy to understand why more P-O-P and retail graphics work is migrating to high-end flatbed printers.

The Point-of-Purchase Is Anywhere and Everywhere

Today, the point-of-purchase isn't limited to the checkout counter of the local grocery or department store. Now, anyone can buy anything wherever and whenever they choose. We can research and buy products online and/or visit stores to physically touch the merchandise and read the packaging.

The Adobe 2014 Mobile Consumer Survey confirmed that many consumers are using mobile devices in brick-and-mortar stores to aid their shopping experiences. After inspecting products on store shelves, consumers use smartphones to research and compare products, look up customer reviews, or download coupons. Research conducted by JWT Intelligence showed that 63 percent of Millennials and 44 percent of Gen Xers are willing to purchase products by using their phones to scan codes on images of items displayed on billboards and signage that they pass on their daily commutes.

As media channels have multiplied, brand marketers must figure out how, when, and where to deliver the right mix of product information and discounts to motivate consumers to actually make the purchase. Right now, retailers and brand marketers are doing a lot of research and experimentation to find the right mix of online and offline media for promoting their products.

In its "2014 Mass Merchant Study," POPAI examined how people make purchasing decisions within three major mass-merchant retail chains. One key finding was that 82 percent of purchasing decisions are made in-store. This is a jump from a 2012 study of grocery-store shoppers showing just 76 percent of purchase decisions were made in the store. The 2014 study also found that 34 percent of mass-merchant shoppers don't enter the store with a shopping list and 62 percent didn't use direct mail, newspapers, circulars, TV ads, or information from electronic sources to plan their trips.

"Displays have a huge untapped potential to drive unplanned purchases

in store,” says POPAI study collaborator Kirk Henderson, CEO of the Eye Faster eye-tracking video service. Eye Faster tracking data used in the study found that 16 percent of unplanned purchases were driven by a display the shopper saw while shopping. According to Michelle Adams, president of Marketing Brainology, “In-store marketing is a \$17 billion industry that brands and retailers should tap into more. We know from the POPAI shopper engagement study that displays can entice shoppers to buy.”

Necessity Is the Mother of Reinvention

Old-school ad agencies that helped customers develop ads for placement on TV and in print have evolved into “brand experience” specialists that help clients deal with the proliferation of communication channels and technologies. Their goal is not just to help advertisers make an impression on customers, but to build relationships with them.

In a 2014 report published by SoDA (the Society of Digital Agencies), Joe Olsen, the president and CEO of Phenomblue, says his firm uses technology to help connect people and brands. He observes that traditional media is fixed, whereas digital is iterative. Digital technologies have made it easier to prototype and tweak creative concepts. Nearly 70 percent of the clients who responded to the recent SoDA survey said being regarded as an early adopter was key to their brand position.

Some digital agencies have reinvented themselves as technology incubators and innovation labs. Other firms see an opportunity to help their clients become more proficient in analyzing the huge streams of incoming data and converting it into creative, highly targeted, and interactive marketing programs that combine online, social, and print media. In an interview posted on The Creative Group blog, Joseph Corr of the innovation studio Deeplocal says he believes the creative team of the future is likely to include “creative technolo-



Print providers who understand the use of QR codes to drive viewers to take actions on their smartphones, as well as other technologies such as iBeacon, SMS codes, and augmented reality, will have a leg up on those who can't.

gists” – people who are nimble, experimental, and comfortable in an environment of constant change.

These innovation-focused marketers and agencies will prefer to work with print service providers who are also nimble and willing to experiment. Right now, that means knowing how to use tools such as iBeacon, NFC tags, QR codes, SMS codes, and augmented reality to make printed displays more interactive with smartphone-carrying customers.

Interactive print technologies are likely to become more mainstream in the next few years. Adobe is teaching marketing professionals and designers how to use data analytics to drive creative decisions and integrate online, mobile, and printed communications. The three million-plus subscribers to Adobe Creative Cloud can now use InDesign or Illustrator plug-ins to add

QR codes and augmented reality markers to designs for packages, displays, and signs.

At Graph Expo, Kate Dunn of InfoTrends explained that marketers want to make print more interactive and engaging so they can learn more about what customers are thinking and gain insights into what motivates them. Dunn said that printed communications, including P-O-P displays, are critical to the customer-engagement process. If the printed communications have campaign-specific URLs, marketers can measure which printed pieces were most effective in bringing visitors to a website or landing page.

A recent AT Kearney report on omni-channel marketing concluded that while digital retailing is capturing headlines, 95 percent of all retail sales are captured by retailers with a brick-and-mortar presence. Retailers are

using their physical stores to help drive online sales: "It's not physical or digital. It's physical with digital. Having multiple channels is good for business."

Some stores are becoming more theatrical and immersive – designed to be more of a life experience than a place simply to buy something. According to the 2013 JWT Intelligence report "Retail Rebooted," retailers are redesigning spaces to be more visually appealing and to accommodate special events. As more of our lives are spent online and we become more disconnected from the physical world, JWT says that people will place a premium on sensory stimulation: "Retail environments can serve as robust complements to the digital ones." Many firms that started out as online marketers (including Amazon) are now establishing retail stores.

Some brand marketers regard retailing as a form of communication – just one more media channel in an integrated multimedia campaign. In a brick-and-mortar retail site, customers can "experience" the brand, feel the quality of products, and/or get friendly, face-to-face advice (e.g. the "Genius Bar" in Apple Stores). The JWT report also cites examples of retailers who are turning store windows into shopping platforms so that products featured within the store can be purchased even when the store is closed.

The transformation of marketing is occurring not just in stores, but also in corporate offices, hotels, and healthcare facilities. Designers who belong to the Society of Experiential Graphic Design bring an organization's brand to life at multiple touch points, including architectural signage, physical graphics, wall décor, digital signage, and interactive kiosks throughout their facilities. All of this experimentation is helping to fuel the demand for shorter runs of frequently updated graphics.

Another trend driving the demand for shorter runs of graphics is the more effective use of data that is being gathered about which types of products are purchased most often



As the definition of P-O-P expands, campaigns increasingly extend across multiple graphic formats (and printing processes), favoring shops that execute each element of the project.

Courtesy of Apple Visual Graphics.

in individual stores. Retailers started gathering the data to help minimize inventory costs, but the same information can also be used to determine which products should be featured in the displays within each store. While many brand marketers still struggle to use all the customer data that is flooding in, some experts believe the use of big data to drive marketing efficiency will be standard practice by 2020.

All of this is contributing to rapid declines in run lengths. "If you look at printers adopting digital and shutting down analog lines, we're just at the bottom rung of that ladder," says Ken Hanulec, VP of marketing, inkjet solutions for EFL. "Screen printers are going to see that marketing folks don't need 500 or 1000 of a print any longer. They want 100. They want to do test runs of 50 or 100, get the graphics into stores, and see what's working."

The Changing Role of Print

The current need to develop web, digital, and mobile platforms has reduced the total amount of money marketers spend on printing. Today, many large

buyers of retail graphics expect full service from their print providers. They don't want to go to one PSP for large graphics and another company for small-format prints.

Many shops that specialize in P-O-P and retail graphics use a combination of print platforms and workflow-automation and color-management software that enables them to shift jobs to the platform that makes the most business sense. Some digital flatbed presses can do work that was formerly done on either offset or screen presses, enabling companies that already specialized in label printing, packaging, or marketing collateral to offer P-O-P and graphics-printing services to their existing clients.

"Traditionally large screen and offset printers have been the first to adopt digital printing technology and cost effectively produce smaller runs," says Gasch. "However, smaller volume print shops are also investing in higher-end digital flatbed equipment to increase production capacity, while maintaining a very high service level."

At an SGIA press conference, Fujifilm introduced Ryan Brueckner, CEO of Direct Edge Media. The young entrepreneur got into the printing business right out of college in 2001 with a 60-inch HP Designjet 5000. Today, Direct Edge Media is a full-service print shop that specializes in short-run and fast-turnaround digital printing. Their equipment list includes three Xerox digital presses, three offset presses, two 98-inch Fuji Acuity flatbeds, a 138-inch Fuji Grand-Format Uvistar, three Roland solvent printers, three 60-inch HP Designjets, and a 74-inch D.gen textile printer.

Direct Edge Media's P-O-P and retail segments were growing so rapidly that they recently added an Inca Onset high-speed flatbed. Doing runs of 1000 sheets on the Onset isn't uncommon, Brueckner said, because Direct Edge Media customers consider digital printing the best option. They like the quality, fast turnaround, and flexibility

as well as the ability to easily print a few color-matched replacements for prints that get damaged during shipping or installation.

At the Executive Outlook Conference prior to the 2014 Graph Expo, printing consultant Hal Hinderliter emphasized that the growth of online communications hasn't affected all forms of print uniformly. He noted that "print that informs" is declining in favor of "print that performs."

When people want to read information about new products and how to use them, they go online. "Print that performs," Hinderliter explained, pulls people away from the information overload of the on-screen world and temporarily brings them back into the tactile, physical world. Creatively designed graphics, signage, packaging, and brochures with sensory appeal (special textures, scents, or imagery) can attract attention, create an impression, support the brand story, or engage the viewer.

Screen Printing's Future in P-O-P

"Some people want to categorize digital as a screen-printing replacement, but it doesn't have to be," says Larry D'Amico of Agfa Graphics. Like all print buyers these days, P-O-P customers just want the job delivered at a certain quality level, turnaround speed, and price. "They don't care if it's done on a digital or a screen press as long as you meet their criteria."

Dolf Kahle, CEO of Visual Marking Systems, agrees with this observation. While he used to introduce himself as a screen printer, he says, "That's the last thing I would start the conversation with now." He points out that not long ago, companies equipped with offset presses, screen presses, photo processors, and flexographic equipment served different markets. With the rise of digital printing, he says that's no longer true: "It's not about the process anymore."

"The broadest impact on screen printing as a mass-production technique is the shift in marketing from general, national programs to regional,

local, and even one-to-one messaging," says Brent Moncrief, VP of sales and marketing, Durst Image Technology US. He compares the "versioning" of P-O-P graphics to the evolution of retail catalogs: "In the 1970s, nearly every home in America received the Sears catalog in their mailbox – one each of the exact same, massive, printed piece. Over time, Sears and their competitors segmented their offerings and their customer bases, which resulted in more versions of the catalog, shorter run lengths, and often more frequency. We see the screen printer facing these same competitive pressures from their retail and brand clients."

This doesn't mean screen printing will disappear entirely from the large-format graphics mix. "Digital flatbed printing equipment advances have shifted the breakeven point between analog and digital printing, enabling long runs and addressing many market demands. However, there are still capabilities unique to screen printing, including the use of metallic and phosphorescent inks, specialty substrates, and unique colors," says Gasch. "There are also long-run volumes that still justify analog printing. When screen-printing presses are fully amortized, customers tend to equip those devices for very long runs and for very specialized applications where specific colors or finishing effects are needed."

Crosby agrees, noting that "a number of factors keep screen printing as a method of choice." Some of these include custom Pantone or corporate colors that aren't easily replicated with four-color process or runs lengths over 1000 impressions on plastics, foamboards, corrugated, or heavy card stock. Jobs with heavy solids or line art that can run as two- or three-color jobs instead of four-color process are other factors that favor continued use of the screen-printing process.

Not all clients are seeking shorter runs of more personalized and customized graphics, Crosby says. "Some are looking to build an international brand in which all doors receive the



The trend toward short runs of signage that needs to be updated frequently isn't unique to retail stores. Signage programs for corporate offices, hotels, and museums are undergoing similar transformations.

Courtesy of Perception Wide Format Media.

same message. These clients are looking for cost efficiencies through standardization and longer runs. They are less concerned about speaking to local markets." Clients who want to customize their messages for a regional audience run special programs in fewer doors based on their perceived needs for that market and the triggers for spending activity. According to Crosby, "They feel that the increased costs are offset by higher, targeted sales." Plus, not all components of a P-O-P project require customization. Standardized elements could be mass produced on screen or offset presses and combined with shorter runs of graphics produced digitally.

Invest in More Than a Press

According to the Big Picture Premier Printer Guide (bigpicture.net/printer-guide), your company can now choose from more than 170 models of wide-format UV inkjet flatbeds (and hybrids) from more than 25 major manufacturers. Bigger plants producing large volumes of P-O-P work tend to focus on the high end of this machine class, presses that most closely approximate an in-line screen press with top quoted speeds over 3500 sq ft/hr



Retailers are striving to create more immersive environments, using wall murals and other formats that fall outside the traditional definition of P-O-P graphics.

Courtesy of Murals Wallpaper.

and the ability to automate sheet loading and/or takeoff. (Examples include the Durst 1312, EFI Vutek HS100 Pro, HP Scitex FB10000, and Inca Onset S50i.)

Streamlining prepress and production workflows has become a critical step in successfully integrating a high-speed UV flatbed line. According to Bowers, Miller Zell is in the process of addressing this now. “It is essential for dealing with the customization of graphics and achieving faster turn times on jobs. It is also one of the areas where costs can be reduced – both in terms of number of ‘touches’ that are required to handle files as well as eliminating human error.”

“Workflow is absolutely paramount,” says Hanulec. “In order for print to remain relevant, it has to be more like my iPhone – it has to give me what I want now, instantly. In order to do that in an efficient and effective manner, you can’t put people on it. The workflow has to be totally automated from the time the files get submitted and prepped down to the final distribution.” It’s also important to tie your print MIS systems into the process so that data on job status and costs can be properly captured and reported.

If you worry that you won’t have enough work to keep an expensive digital flatbed running at capacity, consider setting up a web-to-print storefront. These online interfaces make it easy for clients to send preflighted, color-managed PDF files directly into your production workflow. Some press manufacturers offer web-to-print solutions; many others are available from independent software developers. (See “The Other Shop Software,” February/March 2014.)

Be prepared to automate the finishing department, too. According to Isabelle Noppe, product manager of Esko’s i-Cut Suite for large-format printing workflows, “Flatbed printer owners come to us for guidance because they are dealing with short runs on expensive, high-speed presses. They have invested a lot of money in these presses and really want to keep them running. They struggle, because without automated workflows, they can’t keep up with all of the short-run jobs.”

Dolf Kahle says Visual Marking Systems will continue to use the robust mix of screen presses and digital printing equipment they have acquired over the years. But he expects to replace two of the company’s 11 screen-printing lines in the near future. After Svecia

went out of business, he says, it has become increasingly difficult to keep the presses up and running.

Considering ongoing changes in customer expectations and the competitive landscape, Kahle doesn’t plan to look backwards and replace the old screen presses with newer ones. He prefers to look forward and continue expanding and upgrading his fleet of sheetfed and roll-to-roll digital printers and cutting tables. For a while, Kahle outsourced specialty projects such as rolls of labels. But after he realized just how much work he was outsourcing, he invested in an HP Indigo WS6400. Today, Visual Marking Systems has eight digital presses, two roll-to-roll latex printers, two HP Indigos, and two Zünd cutting tables. Kahle still outsources a few projects, but with the company’s mix of screen- and digital printing equipment, they can produce about 98 percent of what they sell.

In their new book *This Point Forward: The New Start the Marketplace Demands*, industry analysts Joseph Webb and Richard Romano explain why commercial printing firms can’t afford to keep looking in the rearview mirror to make equipment decisions: “An increasing number of today’s communications and advertising managers do not expect to use print. Why should they? It doesn’t serve their purpose. It’s not that they hate print. It’s that they’ve found other media that are more effective for their particular objectives. Today’s marketing managers are highly skilled digital media experts who are both creative and innovative, and fluent in the statistical nature of digital media analytics.” In order to stay relevant to the changing needs of their customers, all types of print service providers must remain aware of what their customers might need from this point forward. ▶

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