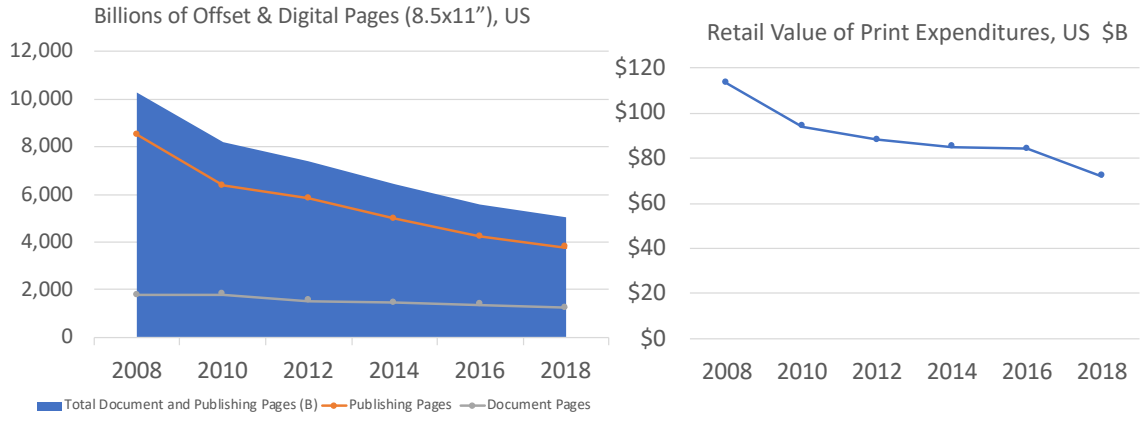
The Need to Invest in Production Inkjet Technology

We live in a rapidly spinning world of change, one that has particularly affected the print industry. Instant and omnipresent electronic communication is reducing the need for paper-based communication, especially for publishing related applications such as newspapers, magazines, and catalogs. For document pages, growth in digital print volumes has not been enough to mitigate the decline in offset pages. Much of the offset print volume decline stems from the disappearance of what one might call low-value pages, pages that historically were printed in order to obtain a low cost per piece, but were never used (think of all the marketing collateral collecting dust in office closets everywhere).

Figure 1 The Sobering Reality: Print usage has to become smarter, more relevant



But print remains valuable for many applications, as evidenced by the nearly $80 billion spent by companies who buy print in North America. Digital printing in particular is allowing smarter use of print, including micro-runs, "zero inventory", and personalization. All of these benefits are starting to make print more relevant. Digital printing is also addressing the changes in business models of how print is bought, including:

- Shorter run lengths, higher job frequencies
- Less room for waste
- Need for automation and business model change
- Greater need for flexibility

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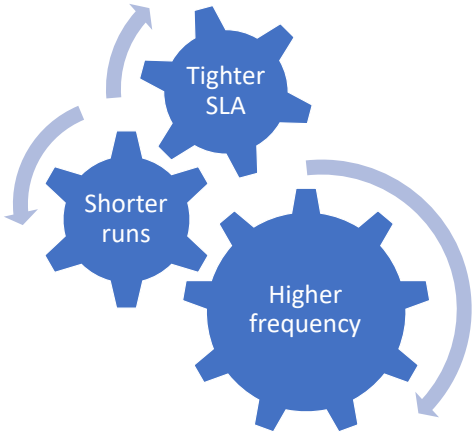
The daily pressures of shorter, more frequent runs aren't going to relent anytime soon. In fact, the pressure is becoming more severe as the service level agreement (SLA) deadlines get tighter and tighter. It's giving new meaning to on-demand, as clients demand and you deliver any way possible.

Figure 2 The daily pressures

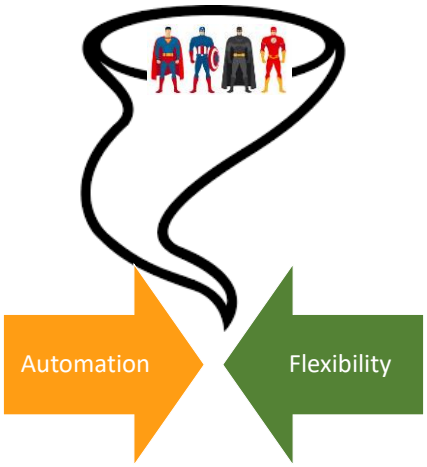


As the pressure ratchets up, the pressure to automate becomes stronger. But automation often means limiting choices in order to standardize and move the work through the plant faster. That works well if the work is consistent and one participates in a growing market, but we are no longer in a growing market. Stealing share in a declining market also isn't easy, as this often means sacrificing margins. In declining markets leveraging economies of scale in order to reduce cost often works against us, as volumes decline and costs for raw materials like paper starts to increase.

To make money, one does need automation, but at the same time one also needs flexibility to create different, "smarter" types of print. One needs the flexibility to make last minute changes, add variable text and/or graphics, and have sufficient production capacity to meet user's volume needs. Production inkjet technology is a critical answer to meeting the needs of smarter print.

Figure 3 The Superheroes who keep the business afloat

There are several other challenges coming up that will require print providers to make print "smarter". Today the balance between automation and flexibility is managed by the "superheroes" who keep the plant running. Those superheroes aren't getting any younger however, as demographic trends indicate we'll have more 65+ adults than children under 18 years of age within the next 10 years. As it stands, the average worker in the US print industry is 48 years of age, or 6 years older than the average US worker. The average age of offset press operators is in the mid-high 50s. Some large print providers say that every time an offset press operator retires a production line is taken out.



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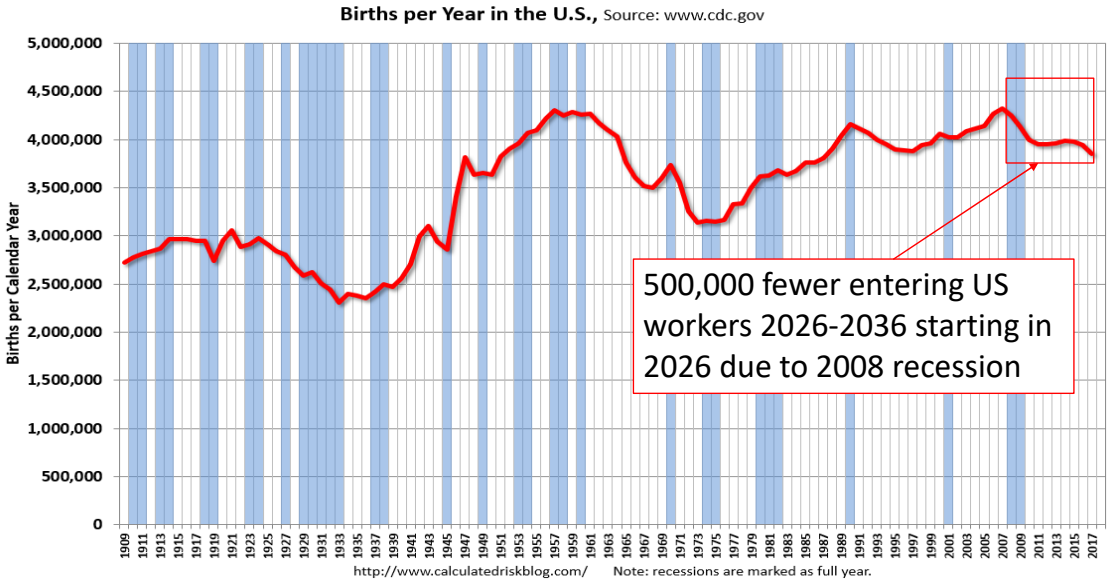
There is a more consequential demographic problem looming however, one that will cause the beginning of a tipping point from offset to digital production printing. The 2008/2009 economic recession caused some long-term shifts in demographics, the effects of which will catch up with us starting in 2026. Between 2008 and 2018, the US had 500,000 fewer births than at its 2007 peak. Those born in 2008 will start entering the workforce in 2026.

Figure 4 The Tipping Point from Offset to Digital Printing: 2026



What this means is that starting in 2026 there will be more competition for labor than ever before, well beyond just the print industry. Already finishing labor is under pressure from $15/hour Amazon and McDonalds wages, and by 2026 IT Strategies predicts low-skilled printing plant labor will approach $25 per hour, if you can find them.

While all of these trends are sobering, they are also extremely predictable. We know that within the foreseeable future we'll have even greater labor challenges than we have today. We know that the days of competing on growing economies of scale are behind us. What all of this tells us is that we need to urgently change the business models of the type of print we produce, and how we produce it.

In the past, print providers put most of their resources into printing and finishing. Orders were taken, and competition for the jobs were mostly based upon cost, since nearly everyone offers great output quality and service. Today, we're starting to shift more resources to helping customers leverage their data to create more impactful print, print with higher response rates.

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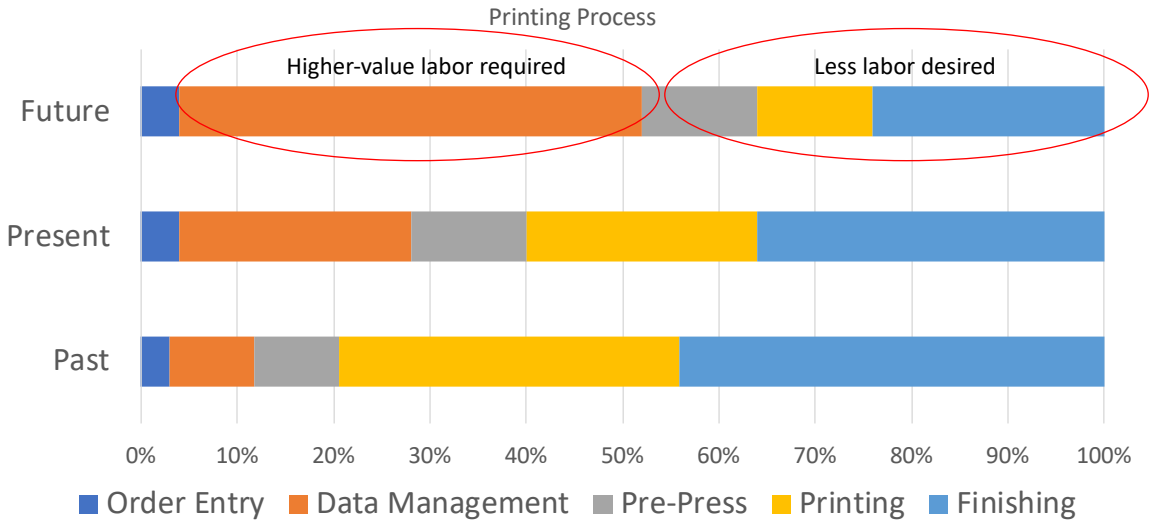
Figure 5 Pragmatic Need for Automation



As we head towards 2026, print providers will have to re-balance their resource infrastructure even more, shifting the resources from printing and finishing to staff that helps print customers leverage their information and customer data to drive actionable and measurable results derived from print communications. To provide a concrete example of this, one only has to look at today's business models. Most print providers compete based on a book of business. These are the house accounts, businesses that they've loyally serviced for years. The problem with the book of business is that it is shrinking, especially in accounts where low price dominates and no value is added.

Some print providers are reacting to this by setting up web-to-print infrastructures, aiming to expand well-beyond their traditional regional boundaries. The challenge with web-to-print is that it is mainly a consumer/small business market, where order size ranges typically well below $100 per order. That means it can't afford to have human touch points, it has to be highly automated, and it has to have tremendous scale in order to generate impactful revenues and margin. This business model works well for less than two handfuls of print providers in the US, but for most print providers the use of the Internet as a sales and workflow tool is better suited as a portal to take off the stress of those frequent, less than $100, and relatively fixed format orders. For most print providers, web-to-print is not a tool to drive up revenues to compelling levels.

The real value in the near future in printing will come from what we're calling *consultative accounts*, accounts interested in smarter print.

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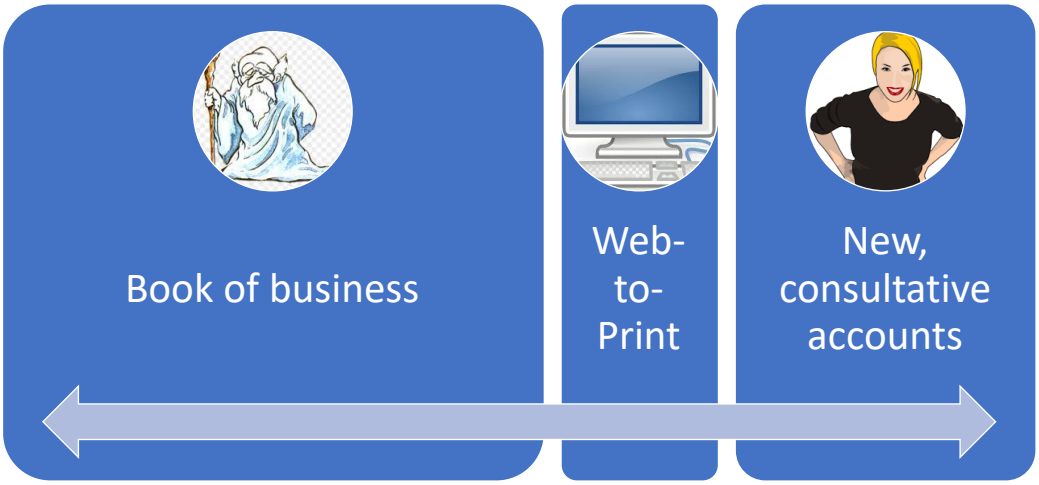
Rather than taking a print order from a customer, a consultative approach requires the sales representative to deeply understand a customer's business and their challenges and needs. It takes someone who is an excellent listener, rather than a stereotypical "deal maker" sales representative. By understanding what's required to drive that customer's business, a proposal can be formulated to leverage a customer's data to drive defined objectives. Sometimes this will require multi-channel communications combing print with electronic communication alternatives; sometimes it is just focused on print.

Figure 6 Changing Business Model Approaches



Smarter print is starting to develop across all applications, including in transaction, books, and direct mail. For example in transaction print, historically transaction statements were akin to Material Safety Data Sheets, something that was required by regulations or pure functionality. What remained mostly unexplored was the fact that 98%+ of transaction statements are opened by the recipient, and often would be the only communication interaction that customer would have with their provider. Today, many of the savvier financial institutions are using the transaction statements to either reduce call center interaction (by more clearly highlighting through the use of variable color), drive changes in behavior (through a customized offer), or to promote ancillary services. While not quite a direct mail piece, the functionality of the transaction statement and direct mail is starting to blur and overlap. Central to this is the use of affordable variable color, enabled by production inkjet printing systems.

In books, production inkjet printing is used to reduce inventory and waste. The book printing industry is one of the last major industries that is effectively a consignment model industry.

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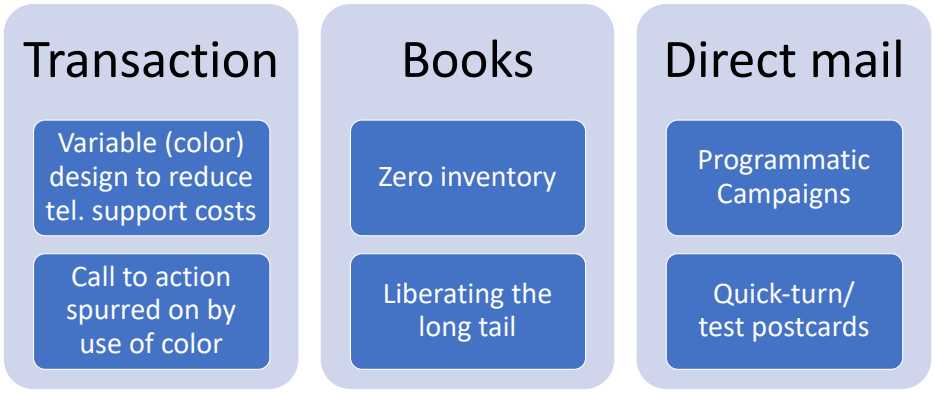
Publishers order a certain amount of books from book manufacturers, sell them to a retailer, and if after a certain amount of months the books haven't sold, they can be returned for a full credit to the publisher who then "pulps" the book after having spent the money to produce, ship, and carry the cost of having it sit on the retailer's shelf. While the return rate has dropped from a peak of 60% in the 1980s, it still remains stubbornly high at 20% or more.

This means that the capital that is tied up in the consignment business model can't be re-deployed by publishers to promote and market new titles. Hence publisher's interest to move to a "zero inventory" model, leveraging the on-line retail model where a consumer orders and pays for a book upfront, the orders gets manufactured, and shipped directly from the book manufacturer to the end customer. Today, about 15% of all books published in the US are printed digitally. The number of digitally printed books continues to grow in the double-digit percent range annually, enabled by the productivity of production inkjet printing. It has been a significant growth driver for both large and small book manufacturer's alike, as publishers are spreading their book manufacturing requirement across multiple book manufacturers for regional service level agreement delivery requirements and competitive multi-sourcing reasons.

Figure 7 High-Volume Consultative-Sell Opportunities with Inkjet



The most vivid example of a consultative sales approach is in the direct mail market. Traditionally a customer might order 1 million pieces of direct mail. Instead of producing and sending out 1 million pieces, a consultative approach could entail sending out 100,000 pieces and measuring the response. Those who didn't respond to the offer receive a second, different offer. Those who did respond receive a second offer for an additional purchase consideration. This cycle repeats several times throughout the course of a year, resulting in the production of less than 1 million pieces. However, those pieces are far more valuable, especially when it can be directly measured and proven that the repeat offers resulted in driving up higher sales.

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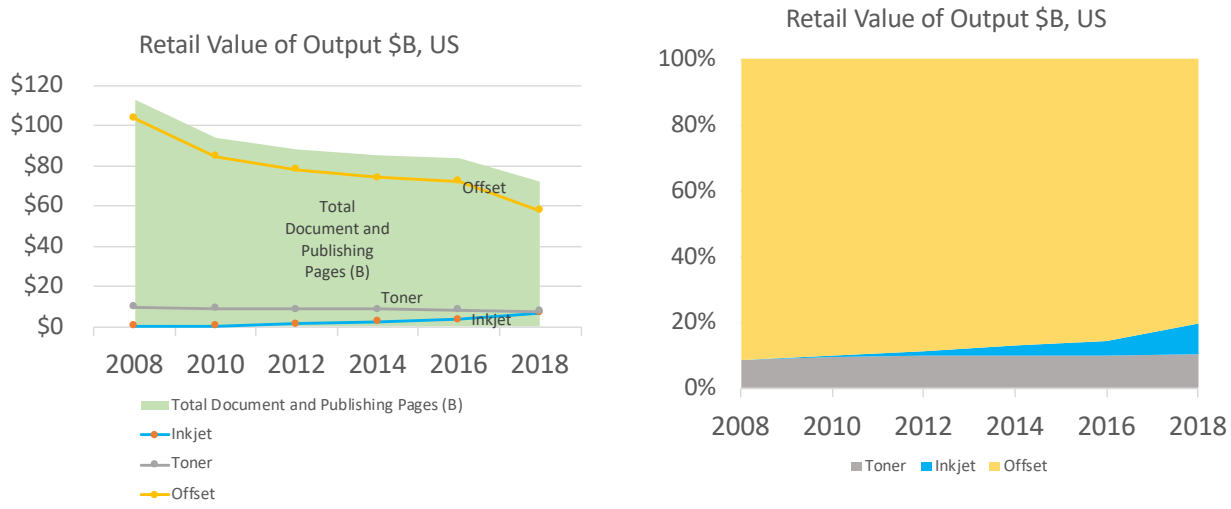
The customer is charged for the data analysis program plus the cost of print. At the end of the contract, the discussion of reducing the cost of print typically disappears, and the focus shifts to how can you drive up the print customer's sales next year. It takes a different approach to gain the trust of the customer to share their data than the traditional sales representative approach, but once the trust is gained and the print provider has become a true partner, the historical focus on reducing cost per piece disappears.

The common theme behind all of these examples of smarter print is the need to have both automation and flexibility, benefits that are not dependent upon "superheroes" to manage as there will be fewer of those available in the print industry as demographics shift. What's required is production print technology that is capable of printing 50 or more jobs per day, with run lengths of 2,500 letter size equivalent sheets or more. With few print providers buying modern offset presses, legacy offset presses aren't eligible due to the set-up time and, more critically, lack of operators capable of running these "artisanal" presses. Toner technology can serve lower volumes of run lengths, but due to their limited productivity capacity are not capable of the main core of production print demand.

The bright spot on the horizon is production inkjet printing technology. It meets the volume capacity requirements, features lower running cost than toner printing at those core volume levels, and offers a range of models that can print on uncoated stocks or glossy offset coated stocks with print quality rivaling offset image quality. Not just a replacement of other print technologies, production inkjet printing is enabling the creation of new value, of smarter and more valuable print.

Figure 8 The Opportunity: If you want to grow in print, the choice is clear



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The print industry is at a stage in its life cycle where print providers need to focus on value rather than volume. Yes, the print industry as a whole is in decline, but there is great opportunity to create incremental value (and revenue) leveraging the benefits enabled by production inkjet technology. A print technology view of the same data, as figure 1 shows, the strong growth of production inkjet printing against a mostly flat toner (decline in monochrome, growth in color toner) market, and a steep decline in offset print. The data trends are clear. The sole growth driver in the production print market is production inkjet technology.

The bottom line is the future of print is predictable, and print providers can prepare for shifting trends by changing business models. Print providers have to migrate their business models to smarter print. There is great risk in staying with the status quo, and even greater risk by not investing in production inkjet technology. After more than a decade of service, production inkjet has proven reliability and uptime that has surpassed even the most optimistic initial projections; inkjet upgrade promises are being delivered upon extending the image quality and production capacity ranges during the equipment's life cycle; and, there are more choices of production inkjet technology than ever.

Canon Solutions America offers the broadest range of production inkjet printers on the market, from cut-sheet to continuous feed, from high-productivity to offset image quality printers. All are available with Canon's comprehensive PRISMA workflow software. What's more, Canon Solutions America offers a Professional Services team dedicated to training new customers on production inkjet technology, helping them move applications over to their inkjet press, and getting them up and running as quickly a possible. And with its Service team utilizing state-of-the-art predictive analytics, Canon Solutions America's print provider customers typically enjoy uptimes of 95% or greater with production inkjet presses.

We live in a rapidly spinning world of change. Production inkjet technology provides stability in changing times, and opens opportunities for new business models that result in smarter, more valuable print.

About I.T. Strategies

Since 1992 I.T. Strategies, Inc. has been dedicated to serving digital color printing equipment and supplies manufacturers with consultancy and research. The company delivers intelligent data, analysis, strategy and implementation practices to digital equipment manufacturers around the world on applications ranging from 3D printing to production printing to wide-format graphics poster printing, with inkjet technology development as its core focus.

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