

The header features a red banner with a white grid pattern on the left side. Below the banner is a blue and white geometric pattern of overlapping squares and rectangles.

**drupa**

# Global Insights

## Executive Summary

Welcome to this 'drupa Global Insights' report on the impact of the Internet on print. It is the first of a series of reports that will study strategic shifts in the international print and media sector at both global and regional levels.

This report follows the publication in February 2014 of the first 'drupa Global Trends' report, an annual publication that will track key economic and market developments in the global print industry over the period leading to drupa 2016 and beyond.

Messe Düsseldorf, in its role as drupa organiser, appointed two independent consulting and market research companies - Printfuture (UK) and Wissler & Partner (Switzerland) to conduct these two report series.

In early spring 2014 we asked the printing company members of our drupa expert panel to participate in a survey on the impact of the Internet on print. A total of 1063 senior decision makers answered the extensive questionnaire with a good cross section across all markets and regions. Of particular interest were the 240 participants who took the trouble to offer personal examples of the trends experienced in their own companies.

In this report, it was our objective to compare and contrast the data and opinions provided by the drupa expert panel as representatives of the global print industry with data and commentary from the wider world.

Our grateful thanks go to the respondents for taking the time to participate in this survey.

The drupa team

**drupa Global Insights** October 2014



## The Impact of the Internet on Print - The Digital Flood

### The changing demand for print

Before the mid 1990s, virtually all publishing as well as personal and business communications were analogue in nature, in the main split between print, broadcasting and telephony. Print was the oldest medium and global demand for paper was strong and stable.

The last 15 years has seen the arrival of digital technologies and an ever-increasing proportion of communications is now digital not analogue. It is important to examine how print companies across the globe have adapted and how their experience has contrasted with the wider impact on the world of this fundamental transition.

Amongst the total drupa global expert panel 46% reported a decline in demand for conventional (non-digital) print over the last five years, compared with 21% who reported an increase, an overall net balance reporting decline of 25%. When the answers were analysed between sectors, Packaging came off by far the best, with a far smaller net balance reporting a decline of 14% compared with 33% for commercial and 42% for publishing printers. In terms of substrates, a net balance of 9% reported a decline in demand for paper over the last 5 years, compared with those that reported an increase. This contrasts with net balances reporting growing demand for carton board, flexibles, metal, glass and fabrics.

Advertising pays for the majority of print so the steady drift away from print to other forms of digital communications has had a compound effect over time. The relative decline of print is not across all markets but for some sectors it has been severe. Take newspapers, where in the US demand for newsprint has dropped 62% between 1999 and 2012. Over the same period

print advertising fell by 60% as marketers swapped to digital channels.

In contrast packaging is forecast to grow at about 4% per annum to 2018 as the Internet has not removed the need to protect our goods and promote them on the shelf. Equally industrial/functional print is growing at an annual rate of about 13% albeit from a much smaller base.

### The digital flood

To understand the radical changes in communications, we must understand the revolution in digital technologies over the last 25 years. The ever-reducing cost and ever-increasing power of computer chips; the ever-increasing network communications speed and bandwidth and the ever-accelerating number of users connected has driven the astonishing growth in the Internet and the associated World Wide Web. Add mobile communications (increasingly Internet enabled) and you see why digital communications increasingly dominate and all other communications channels including print are in relative decline.

By 2012 it was calculated that 35% of the world's population was connected via the Internet, although distribution is very patchy. As for mobile phones, by 2013 there were 3.4 billion subscribers, equivalent to just under half the world's population.

So print is now part of the broader communications industry, and printing companies need to be increasingly IT-led. Yet only 23% of our drupa expert panel reported that IT expenditure had grown over the last five years and virtually all reported difficulties in recruiting adequate IT skills.

## The migration to digital communications

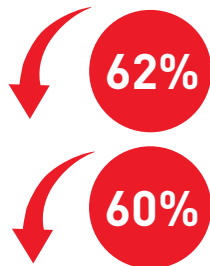
A range of factors explains the rapid migration to digital communications over the last 30-odd years:

- Digital communications are rapid, even real-time.
- Interactivity offers great advantages.
- The consumer has adapted to an 'always on' communications lifestyle.
- We are mobile with access to multiple touch-points and channels.

## Print decline

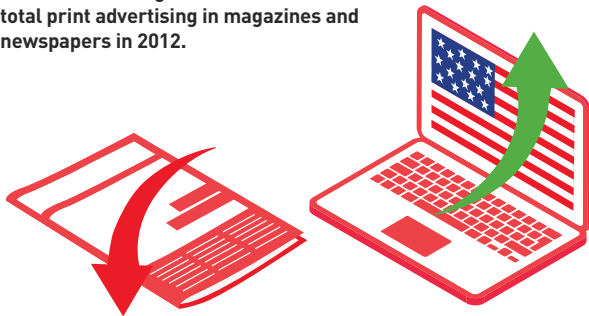
### Demand for US newsprint

Demand for US newsprint declined by 62% over 13 years to 2011 whilst print advertising in newspapers declined by 60% over the same period.



### Online advertising

Online advertising in the US overtook total print advertising in magazines and newspapers in 2012.

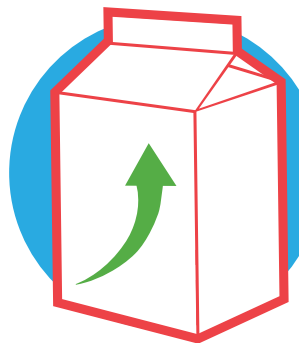


## Print growth

### Industrial/Functional print growing at:



### Packaging print growing at:



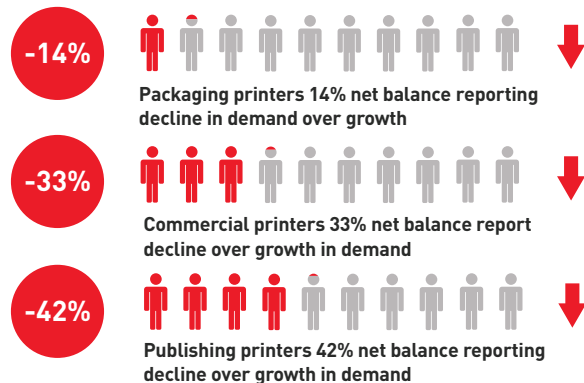
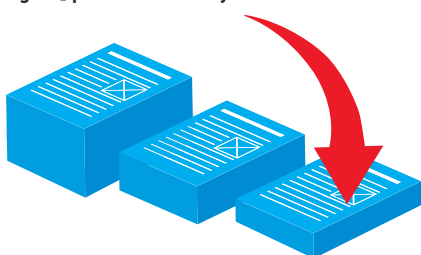
## Print demand

Until the late 1990's the growth in print demand kept pace with growth in GDP, since then it has lagged further.



## Declining demand

Declining demand reported by the panel for conventional [non digital] print over last 5 years.



Marketers will therefore consider all the channels available and choose those that fit within budget and prompt the best (ideally recordable) response. Regrettably, younger marketers may only consider digital channels. Yet print can add huge value to multichannel campaigns. The average response rate for standard direct mail is reported at 3.4%, compared with 0.12% for email. So direct mail that drives consumers to a digital channel, ideally via an interactive element, is an attractive way forward.

So how have commercial printers on the drupa panel responded to these challenges? Commonly they have sought additional revenue streams by adding new services such as web-to-print (W2P), customer database management, digital asset management etc - most of which use the Internet to function.

Publishers of newspapers, magazines and books have faced equally stiff challenges from the Internet. In 2012 US online advertising overtook the total print advertising in newspapers and magazines combined. And online advertising is certainly not migrating to newspaper publishers. For every \$25 of lost print advertising it is calculated that newspaper publishing gains just \$1 of digital advertising.

Nevertheless, while digital revenues are growing rapidly for magazine publishers (particularly for business-to-business), it will be many years before print advertising and circulation revenues cease to be the dominant source.

As for books, again the printed book will remain for some years the dominant revenue source for professional publishers. However in the book publishing supply chain a radical transformation, enabled by ecommerce and digital print-on-demand (PoD), has taken place.

Furthermore use of ebooks is steadily increasing, but in complement to print, not as a full alternative. The other big features for books are that with PoD no book need ever go 'out of print' and there is a huge growth in so-called 'self publishing'.

Our drupa expert panel of printers who work in publishing has responded to these challenges by adding on-demand or short-run digital print; adapting to ecommerce-led supply chains and adding a variety of new services e.g. customer database management, adapting files to alternative output devices etc. Indeed, while conventional book production was reported as declining or at best stable, 59% reported growth in short-run digital production and 51% reported growth in on-demand digital production.

Sustainability is an issue of increasing concern for publishers, marketers and the consumer. As the comparative debate matures past naïve anti-paper slogans, and the environmental costs of digital infrastructure and use become better understood, there can now be a more effective selection of the right combination of media channels for each occasion while considering the sustainability implications. Reflecting this, our expert panel reported shifts in the paper purchasing habits of their customers, most notably the rise in demand for accredited papers.

## The rise and rise of ecommerce

Over 20 years the volume of ecommerce in many countries has grown from negligible to huge volumes that include virtually all companies and most consumers. The growth figures are just astonishing; with even the most mature market, the US, still growing at 8% per annum, with China due to overtake it in volume terms in 2015 and to triple its volume of online trading by 2020.

There are many advantages to ecommerce that explain this explosion in participation, and the pace will accelerate further with increasing numbers of consumers using their Internet enabled mobile phones to participate in 'm-commerce'.

The report highlights the huge impact ecommerce has had on vast industries such as music publishing, book publishing, retail and banking. Yet print has struggled to exploit the opportunities.

While 51% of the drupa panel had web-to-print, only 14% reported they used it to transact more than 25% of their orders. Our commercial printer panel members offer a variety of products for sale via the Internet, but while there are individual success stories, a recent US survey reported that only one in four W2P installations was considered a success by the printers concerned.

In terms of catalogues, 47% of the panel reported a decline in demand for conventional print (versus 15% an increase), a net balance of 31% decline. However there was much better news for shorter run 'versioned mini-catalogues,' with 47% reporting growth and 60% reporting growth in short-run digital production. The reason is clear - marketers see that print

catalogues drive online sales, so print is a valuable ally for ecommerce when it becomes part of an integrated multi-channel process.

## The shift to mass customisation

The industry has seen a dramatic shift from mass production of static print to an ever-increasing proportion of small runs of digital print and down further to individual runs of one. Digital communications has driven this shift, supported by sophisticated data management and workflows.

Variable data print (VDP) is the essential prerequisite for customisation and the net effect is forecasts of a slow decline in static print (0.5% per annum to 2017) contrasted with rapid growth of digital (electrophotographic at 1.5% pa - building on a large installed base and inkjet at 14% pa - reflecting the small installed base) to double digital print's share of total print volume to 14% by 2017.

72% of the commercial printers in the drupa panel offer VDP and 56% reported modest or fast growth, albeit from a low base. Indeed, last autumn the panel's commercial printers selected cut sheet digital electrographic presses as their top print investment.

Another striking development is the rapidly growing popularity of interactive print (QR codes, augmented reality etc) that enables print to play a role in an online sales cycle. 32% of the expert panel offer at least one such service.

One key driver of mass customisation is the ever-increasing volume of digital data that is being held - so-called 'big data,' where the volumes are so large that conventional analyses would struggle to cope. For example, online business data is forecast to grow at a

compound annual rate of 40%. However with the right software and skills to drive it, very exact segmented marketing, down to the level of individuals, can occur - either digitally or by printing. Here is a great opportunity for printers (who are used to handling high volumes of digital data) to manage and analyse customers' data for them.

Packaging supply chains are responding to such opportunities to create just-in-time, on-demand business cycles that reduce lead times, cost and waste. Technical issues such as exact colour management are being resolved and supply chains are becoming agile enough to exploit the opportunities. Indeed, among packaging printers on the expert panel, 50% reported they offer interactive print of one form or another, 43% offer variable content and 41% some form of personalisation, albeit only a low level of SKUs are involved at present.

The Internet has both increased the opportunities for personalisation and also the competition to win that business, as customers no longer have to meet the printer and printers can compete in an ever-wider geographic market.

Customisation has added new products to the conventional list of personalised products (business cards, stationery etc) with items such as photo books and calendars for commercial printers and décor items for industrial printers. Over 50% of the panel's commercial printers offer some products that are personalised, although some products involve a higher level of investment in specialist equipment and marketing to compete successfully e.g. photobooks.

Direct mail is offered by 51% of the panel's commercial printers and while there is plenty of evidence of a sharp decline in the total volume of direct mail, strategically targeted direct mail is growing.

Overall, printers need to get much closer to their customers and end users, to capture data and understand how personalisation can be relevant, timely and provide added value.

## Managing with the Internet

Regardless of what you are printing or how, the Internet can assist printers in becoming more competitive. For example, it is fundamentally changing the way businesses are conducting their sales and marketing. The drupa expert panel admitted to a very patchy adoption of such techniques as customer database management (just 34% use it), website analytics (23%) and social media (25%) and only 17% use these in integrated campaigns that are demonstrably the best way to exploit these techniques.

Turning to customer service and production, we have all been impressed with examples in our daily life of effective multi-channel 'customer journeys' as well as painful examples of the reverse. But how many printers have assessed their own company's 'customer journeys' objectively? Certainly 84% of the drupa panel reported use of FTP/upload portals, but only 55% use automated pre-flight testing and 44% use digital asset management. Surprisingly only 47% claimed integrated estimating, order processing and job bag production and only 21% reported a fully automated order processing system from enquiry to invoicing.

As for other online business services, 68% used online purchasing and 54% of those with an MIS had remote access but less than half used online training, recruitment, business intelligence and credit checking. It is puzzling to see the low take-up figures for all these online aids to greater competitiveness and efficiency.



## Summary

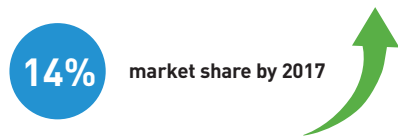
The print industry is in a period of unprecedented change driven by digital media, the Internet and changing consumer demand. This report highlights the need for change and demonstrates that most printers are changing more slowly than the world around them.

The technology is available to facilitate this change and there are many new exciting applications and growth opportunities to exploit. Printers just need to believe in the reality of a multi-channel digital future, change their mind-set and invest accordingly.

## Digital vs conventional

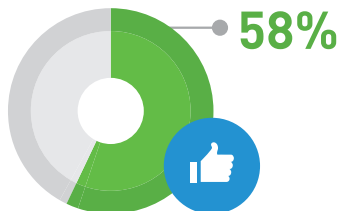
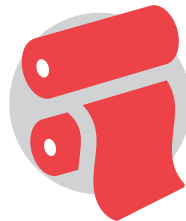
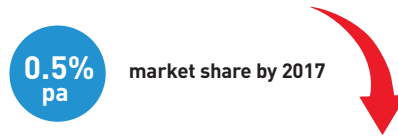
### Digital print

Digital print output is forecast to grow from 8% market share in 2012 to 14% in 2017.



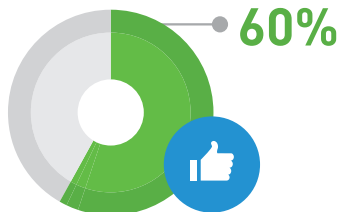
### Traditional print

Traditional print is forecast to fall by 0.5% per annum to 2017.



## Book printing

58% of the panel's book printers report slow or rapid growth in short-run digital book production.



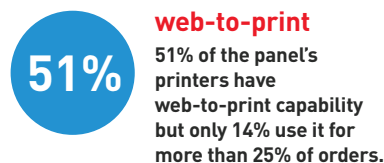
## Catalogues

60% of the panel's catalogue printers reported slow or rapid growth in short-run digital production.

## Ecommerce

### Chinese ecommerce

The Chinese ecommerce market is forecast to triple in size by 2020.



## Technology & print

### Mobile phones

By 2013 just under half the world's population had a mobile phone.



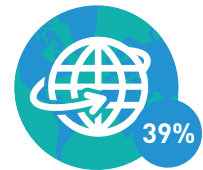
### Ebooks

Ebooks will represent just 22% of the global market by 2017.



### Internet use

By 2013, 39% of the world's population was connected by the Internet.



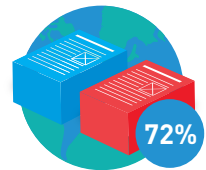
### Interactive print

32% of the panel reported using interactive print eg QR codes.



### Variable data print

72% of the panel's commercial printers offer Variable data print with 56% reporting rapid growth.



### IT expenditure

IT expenditure reported by 55% of the panel has stayed the same or declined over the last 5 years.



### Business data

The volume of business data is expected to double every 1.2 years.

