We deliver herewith a series a series of articles, from designers, brand owners, printers, converters, journalists and influencers. We look forward to working together with experts, who enrich our drupa Essentials with fresh impulses, sound expertise and remarkable experience. All these articles will allow visitors to understand a world that has changed dramatically since the creation of drupa in 1951 and will continue to evolve. Different observations and perceptions of an industry seeking innovation in a fast-changing world. Give free rein to your instinct under the adage: "to each his own drupa".

We are happy to provide you with this expert article and we would be pleased if you publish it.

BE INSPIRED! ___

Good reading. Sabine Geldermann & Team

Raphael Ducos - Dare to be different.



VITA

Raphael Ducos - As journalist, Raphael Ducos has witnessed the printing industry for decades. He today operates as freelancer. He was one of the first journalists to advocate for digital at a time where digital was the "print enemy". He was right in many ways. Raphael has a talent to identify emerging industry trends - he predicted the consolidation

of the print service providers and the emergence of on-line printers. He is looking at things in a unique way. Maybe this is due to his educational background having a master in Philosophy.

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Raphael Ducos - Dare to be different.

The impression is dead. Long live the impression! Long live printing that is integrated alongside other communication channels. This is the way forward and to get it right, you need to make two changes: throw away the old baggage you've carried for so long and embrace a change of mentality. You must swap the old habits of traditional printing for digital ones!

"I am optimistic for the years to come," says Mr. Coquard, head of Industria, a Parisian print service provider with a passion for all things 'tailor-made' and right now on the verge of switching completely to digital printing. "There are fewer and fewer print experts within the customers we engage with. Our contacts are coming more often from higher up in their organizations, in marketing or communications, and they are facing broader challenges. They do not have a pure print problem but more a communications challenge. And those with a print problem alone often don't know how to manage it. So, if a print service provider can offer relevant communication proposals, ensuring top quality within the required delivery schedule and with a positive communication result (outcome), then there is definitely business to be made!"

Printing has not changed as rapidly as it could have, as new technologies based on toner and inkjet have worked alongside the older ones (offset, rotogravure, screen printing, flexography). It certainly has benefited from all the advantages brought by IT and software, whether in traditional or digital printing and finishing equipment (small and large formats), in process management or in marketing with multichannel or cross media communications. We shouldn't forget the numerous embellishments now available for all technologies and in all markets. In short, the print impression has been transformed, re-muscled, adapted and developed, while meeting a fundamental, necessary trend for reduced environmental impact (control of rejects, less waste, better inks, sustainable papers, etc...)

Some traditional printers, albeit too few of them, go ahead and develop full digital departments or replace offset presses with digital models. But that's not enough, digital printing requires a change of mind: towards flexibility of operation, responsiveness, different management schedules, and real tailor-made service. It is no coincidence that major players in digital printing are often derived from smaller reprographic structures that already have a 'service culture'.

A period of transformation

Today's commercial printing industry is characterized by the rise of digital printing, including inkjet printing, combined with significant modernization of traditional printing technologies. Offset is surviving thanks to technical advances: automation of calibration processes, reduction of waste, higher speed (20,000 sheets/hour), offset-digital hybrid workflow, offset-digital combinations in commercial, labels, packaging, binding with finishing equipment (as in digital). Workflow developments are seen in all areas and internet printing (web-to-print) is booming.

It is now possible to respond to customer-demands that could not have been met before, such as the printing of a single copy of a book, very short print-runs for brochures or documents as well as packaging and fully customized labels. The demand for long-tail solutions can now be met with digital printing offers from Canon, Domino, Fujifilm, Heidelberg, HP, Koenig & Bauer, Komori, Ricoh, Riso, Xeikon, Xerox, etc.

The search for the best price is giving way to the search for the most profitable service for the customer. 'Print only' is being replaced by 'a universe with print in it'. From order to delivery, without sacrificing creativity, quality and overall print profitability. The key question becomes "what is the ROI (return on investment) of a print?"

Printed documents that can be de-materialized (into the non-physical) will continue to be de-materialized, so there's only one way to remain in business profitably: by providing added-value and the related services. Customers no longer want to be told how it works, but what it does in terms of results (impact) and in this regard print must contribute (i.e. communicate effectively) when integrated within a mix of media channels.

The return of print

Consumers are saturated with digital information. They can however be positively sensitive (receptive) to different communications that engage them in a distinctive, personal way: invitations, brochures, books, photos, greeting cards, personalized documents using some of the advances in 21st century print: special colours (gold, silver, fluorescent, etc.), varnish, relief, new shapes, form-factors.

"We see a return of print, ten years ago it was cheesy, especially for young people, now you have to know how to mix print with other modes of communication," adds Mr. Coquard. "We are rediscovering that a well-targeted print communication allows us to weave a link to customers". This is echoed in other industries where there is also a return to 'the physical' e.g. Polaroid images in photo and the Vinyl album in music.

We are heading towards more automation of the printproduction process - from receiving the order, managing the files to the shipping of the final print job. Customers want human proximity and fast turnaround time. These two requests are becoming more and more the key criteria for selecting service providers. But how to provide such capabilities when the client is miles away? Equipment wise and in order to deliver the latest services, more and more service providers are starting to use digital printing and embellishments systems (e.g. MGI/KonicaMinolta) or large-format flatbed printing systems (e.g. SwissQprint) with associated cutting (e.g. Zünd). The digital transformation is in small and large format as well. Signage, posters, POS/POs, interior decoration, even textile or car-wrapping are now fully digital. Last but not least, environmental concerns are, for example, driving LED dryers to replace infrared dryers in all production printing systems. New substrates are changing the market landscape enabling new applications and reducing environmental impact.

Online printing factories with offset printing fleets, small and large format digital printers (e.g. Onlineprinters, Pixartprinting) will remain and will further grow, having conquered the various sectors of commodity printing. They will retain this, supported by customers who are also print service providers using them under the so-called white label.

The consequence of all these recent developments: a new market segmentation is looming in printing. We can distinguish six segments that sometimes overlap each other (a bit like in the food, home equipment, or business supply industries):

- Multiservice printing companies expecting customers to walk through the door anytime, often described as small convenient (corner) copyshops.
- Print providers located in metropolitan centres providing quality and fast turnaround time, serving key accounts to whom they have access and to whom they provide different print services.
- Print providers that are well equipped across multiple technologies, able to take on small and large orders.
 They have the necessary space being located on the outskirts of cities, however they suffer the disadvantage of depending on logistics and delivery times.
- The specialists (books, magazines, packaging, etc.).
 They have optimized production lines printing and finishing/converting and have very specific capabilities.
 They typically address national and international clients and markets.
- Printing factories, generally located near communication centres (airports, etc.), who can efficiently handle commodity print jobs with their optimized processes
- Online printers, with fully integrated workflows across printing and finishing for efficient shipping and delivery across countries and borders. Users themselves need to upload the relevant content and select from among defined formats and substrates.

So the new mantra of the printing game is to define where you want to play and to do it right. The winners are the ones providing real services and addressing new segments and markets, moving away from commodity printing. In the not so distant future, Amazon and Google, to name just two, are waiting on the weaknesses of today's print players to then place their own pawns in the game, so as to expand their capabilities building on their proven networks and process expertise. Amazon has in fact already started.

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Inkjet Printing Technology - smaller, faster and less moving parts

Diversification of inkjet printing. Inkjet printing technologies are shared between thermal (HP), piezo (Epson), continuous (Kodak). The inks can be aqueous (dyes, pigments); solvent (better strength); UV polymerization; sublimation (fabric). And the printheads may be in a row and / or staggered, mobile or stationary (also called multi-pass versus single-pass).

Competition is fierce among the various suppliers of the inkjet market. Memjet (Duralink head with Waterfall technology) has chosen to sign agreements with Canon, MGI, Konica Minolta, Gallus, Rigoli (etc.). Fujifilm seems to be on the same track with its Samba heads found in the Motion Cluster (BOBST/Mouvent/ Radex). Xaar (many heads including the last quad 5601) signed an agreement with Seiko and Chinese manufacturers.

HP relies on PageWide technology, from desktop printers to the graphics industry, from small format to large format. HP as well has unique Indigo technology which celebrated 25 years in 2018. Epson is developing a fixed printhead for the label industry. Canon launched a similar approach at first for the office.

Since the end of 2017, Landa has been offering presses based on its exclusive Nanography technology aiming at reinventing printing. Kodak has continuous inkjet printing in the form of independent heads in systems aiming at the high productivity markets (Prosper, Versamark and UltraStream).