

Application of Digital Printing 數碼印刷應用 個案分享

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Print is **NOT** Dead!

PRINT IS...

TANGIBLE



ENGAGING



EFFECTIVE



GREEN



VERSATILE



FORECAST OF DIGITAL VS. OFFSET IN 2022/23

- In 2017: digital printing is **16.2%** of global print market value, **2.9%** of the volume
 - 2012: 2.1%
 - **2022: 3.9%**
- In terms of value, the digital printing market is expected to grow from **USD 22.18 Billion in 2017** to **USD 28.85 Billion by 2023**

Sources:

- *Digital Printing Market for Printers, Inks, and Print Heads by Ink Type (Aqueous, Solvent, UV-Curable, Latex, and Dye Sublimation), Print Head Type (Inkjet and Laser), Substrate Type (Glass, Textile, Paper), and Geography - Global Forecast to 2023*
- *Smithers Pira reports*

TRENDS OF DIGITAL PRINTING

■ The Future of Digital Print for Packaging to 2022

- By 2017, \$12.8 billion sales
- By 2022, **\$22.4 billion sales**, increased by almost **13% CAGR**, while print volume and tonnage are growing much faster

■ The Future of Digital vs Offset Printing to 2022

- In 2012, digital print accounts for 12.0% of global print and printed packaging in value terms, but just 2.2% of the volume
- In 2017 16.4% in value terms, with 3.9% of the volume
- By 2022, **19.1% of value terms, with 4.3% of volume**

Sources: Smithers Pira reports: <https://www.smitherspira.com/industry-market-reports/printing>

DIGITAL PRINTING IN PACKAGING



Sources:

- <https://www.futuremarketinsights.com/reports/digital-printing-for-packaging-market>

DIGITAL PRINTING IN PACKAGING

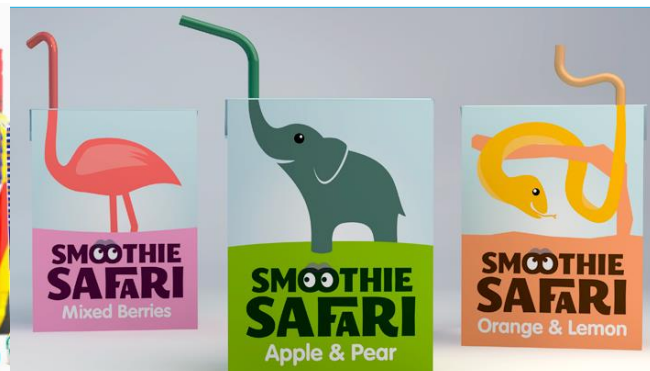
- **Labels segment** likely to grab the highest market share in the global digital printing for packaging market by the end of the forecast period
- **more than 70%** of the global market share by 2027 end, up from 64.1% in 2016
- **Just 5% of labels** are now printed digitally

Sources: <https://www.futuremarketinsights.com/reports/digital-printing-for-packaging-market>

DIGITAL PRINTING IN PACKAGING

- Digital printers **were a “nice to have”** not a “need to have”, but digital printing has demonstrated **print quality improvements, provided flexibility on the line, quicker turnaround times and shorter print runs**
 - **➔** reduce cost and improve the process
- Digital printing added benefit to brands:
 - **Higher value. High-quality packaging** allows for **more design variations** and thus more targeted marketing

Sources: <https://www.futuremarketinsights.com/reports/digital-printing-for-packaging-market>



DIGITAL PRINTING IN PACKAGING

- Format insights: **Variable data printing segment** - the largest share of the industry
 - its ability to produce customized printing without affecting the duration of the process
- Applications insights: **food & beverage sector** - highest share of the market
- Regional insights:
 - **Asia Pacific (India, China)** - accelerated growth (increase in e-retail sales and food packaging industries)
 - **North America and Europe** – key income generation (growing focus of manufacturers on producing low-cost packaging options)

Sources: <https://www.globalmarketestimates.com/digital-printing-packaging-market/>



DIGITAL PRINTING FOR RETAIL

Retailers' Key Digital Printing Applications



Figure 1
Q: How is your company utilizing digital print? (Choose all that apply) (n=68 Retailers)

| **NAPCO**RESEARCH

Sources: whattheythink.com/articles/92349-survey-looks-digital-print-across-buyer-journey/

TREND OF DIGITAL PRINTING

- New digital printing equipment to the market
 - Volumes of toner and inkjet grow while prices fall
 - Digital print more cost-effective
- Change of publishers' behavior
 - Peruse zero inventory model: print-and-distribute model
 - By 2020, Smithers Pira predicts **13.7%** of all books will be printed digitally, representing 47.8 percent of the market's value
 - confident that digitally printed books will represent **equal nearly half** of the publishers' overall revenue



DIGITAL PRINTING CASE (1)


個性化的糖果包裝

- 糖果競爭激烈，此公司主要業務銷售糖果，現在佔其業績的72%
- 利用數碼印刷，製作個人化包裝
- 借助天貓商城，1000顆/箱起訂，在綫定制，從訂單提交到出貨能夠做到48小時
- 目前每個月的速度大概在400%到500%的增長



DIGITAL PRINTING CASE (2)

Personalised Move-in Manual

- University in US enrolled over 15,000 students, with more than 4,100 living in different Campuses
 - Need to assign each student a specific move-in date and time to prevent traffic jams and long elevator waits
 - In the past, the campus prepared a loose-leaf sheets in an envelop with same contents
- 

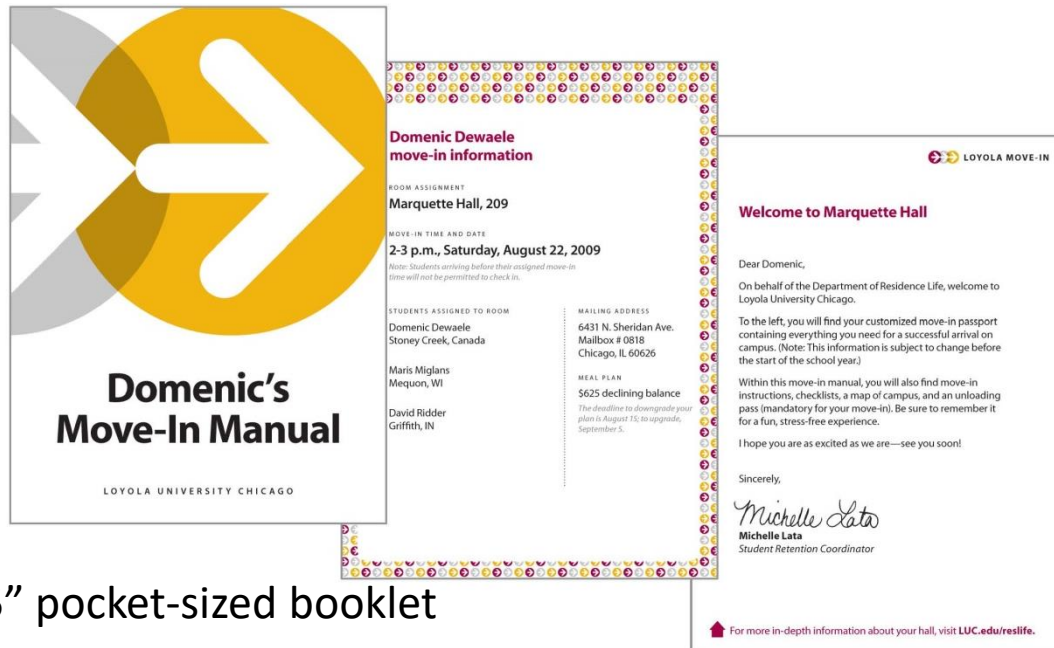
DIGITAL PRINTING CASE (2)

Personalised Move-in Manual

- Objectives:
 - Provide students and parents with information and directions specific to their move-in time and location
 - Help students have a successful move-in experience
 - Build good relation with freshmen and incoming transfer students

DIGITAL PRINTING CASE (2)

Personalised Move-in Manual: Variable contents



4"x 5.5" pocket-sized booklet

Print quantity: 4400 manuals per year

- Student name
- Residence hall information
- Roommate names, hometowns and email address
- Meal plan information
- Campus map
- Color-coded parking pass

DIGITAL PRINTING CASE (2)

Personalised Move-in Manual - Benefits

- Build strong relationship with new comers: move-in process is one of the first campus experiences for freshmen & parents
- Communicate in a format that meets your customer's needs

DIGITAL PRINTING CASE (3)

Varieties of New Organic Baby Food

- New brand of baby food
- Maximize product visibility for eye-catching packaging with convenient re-sealing mechanism to enhance portion control
- Exploit variable data printing for customer engagement in social media activity
- Create on-demand to minimize stock



DIGITAL PRINTING CASE (3)

Varieties of New Organic Baby Food

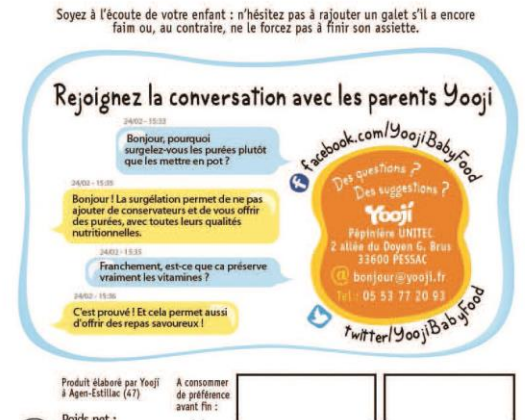
- Initially planned to launch 5 varieties of its organic frozen baby food brand
- With minimum production runs typically of 3,000m² per design for conventional printing presses
 - Cost too high
- Launch 20 varieties of food by using digital, only 5,000m²
- Sales has been 6 times then pre-launch projections
- High number of product SKUs allowed this brand to gain access to major supermarkets



DIGITAL PRINTING CASE (3)

Varieties of New Organic Baby Food

- Create package with variable contents: Print a Facebook page link on the original package, with customer messages left on their Facebook page
- From printer's point of view:
 - open a new market of variable data package
 - In 1st year, only 2 to 3 hours a day
 - In 2nd year, 3 shifts
 - output volumes grew by 12% in the 2nd year, most came from digital printing



DIGITAL PRINTING CASE (4)

按需印刷：巴黎書店 PUF (法國大學出版社書店)

- Espresso Book Machine
- 約720平方英尺
- 應顧客要求才印製
- 使用平板電腦選擇列印的書籍
- 若有需要，還可添加自己手寫的題詞
- 300萬的書，包括來自美國10大出版商和公共領域的書籍



DIGITAL PRINTING CASE (5)

Own-Designed Fashion Catalogue

- Online fashion retailer created the idea of own-designed summer catalogue
- Catalogue cover designed by children, via an online app
- Children were explored to create an island scene, using elements designed by the retailer's creative team, with every cover featuring the child's name and age



DIGITAL PRINTING CASE (5)

Own-Designed Fashion Catalogue

- Using unique ID codes, the cover and design information was married with the individual customer address to create personalised cover files.
- Finally, total 12,000 personalised catalogues printed by digital and mailed out
- Total print run is around 370,000



DIGITAL PRINTING CASE (5)

Own-Designed Fashion Catalogue

- Each child who submitted a design was mailed a unique copy of the catalogue, with his / her personally designed cover
- Creators of ten winning entries received their own cover as a framed print and an iPad as prizes
- Made a donation of \$1, £1, €1, to children's charities for each cover produced



DIGITAL PRINTING CASE (5)

Own-Designed Fashion Catalogue

- **“It is a long-term thing and is as much about brand management”**
 - 2000 new customer names in the database
 - A dramatically higher sales rate from participating customers than from non-participants
- For the printer, the annual growth 8-10% from digital printing



DIGITAL PRINTING CASE (6)

度身訂造學校「整合書」

- 在學制改革之下，愈來愈多學校要求印量少但質素高的教材，學校對教科書的製作需求隨之而改變
- 按需打印是印刷業和出版界的大趨勢
- 縮短製作時間之餘、更加強了印刷業務的靈活性



DIGITAL PRINTING CASE (6)

度身訂造學校「整合書」

- 老師們通常會在學年完結時編訂出下一學年的課程內容，然後要求出版商從不同科目教材中抽取個別章節內容，印製出專為該校個別班級度身訂造的「整合書」
- 由於學校必須在暑假來臨前審訂「整合書」的內容，出版商在接獲訂單後至完成書籍的製作時間非常短
- 數碼印刷能配合不同種類的紙，例如花紋紙等

DIGITAL PRINTING CASE (7)

快印店的一站式印刷服務

- 2008年開始做傳統印刷，雖然利潤高，但是訂單開始少
- 2017年轉型建立了快印店，利用互聯網接單
- 發展成爲集印刷、印後表面處理、包裝配送爲一體的一站式彩色數碼印刷生產中心
- 2018年購入可印金色、銀色、白色、透明色的數碼印刷機
- 非常重視企業在數字化、自動化的轉型



DIGITAL PRINTING CASE (7)

快印店的一站式印刷服務

- 上午下單，下午發貨，免運費
- 在節約人力成本的同時，大大提高生產效率
- 印刷品質和生產產能得到客戶的認可，一年半的時間，
訂單量和營業收入達到翻倍增長



OTHER DIGITAL PRINTING APPLICATIONS

Personalised / On-demand Gift Packaging / Luggage

- Paper bag
- Tissue product
- Customised holiday wrapping paper
- Customised wine gift bag
- Customised wedding wrap
- Customised luggage



KEY TO SUCCESS

- Mass customization (大量客製化)
- Combined with other media / systems, e.g. web-to-print, app
- Fast to market
- Think out of the box!

**NEW ROLE OF PRINTER:
ONE-STOP MEDIA SERVICE PROVIDER**

THANK YOU!

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