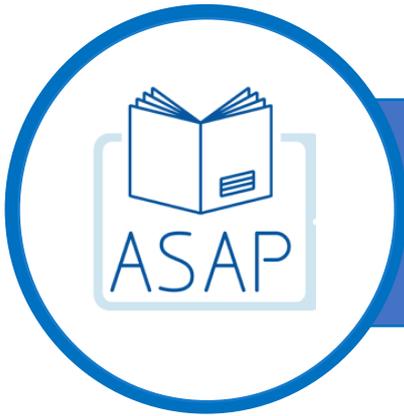




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Anticipatory Skills for Adapting the Publishing Sector

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R2.1 ANALYSIS OF THE STATUS QUO AND OF THE STRATEGIC PROSPECTS WITH REGARD TO THE PUBLISHING SECTOR (DIFFICULTIES, CHALLENGES AND OPPORTUNITIES)

WP2 DEFINING SECTOR SKILL SHORTAGES/NEEDS AND ECVET STRATEGY





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R2.1 Analysis of the status quo and of the strategic prospects with regard to the publishing sector (difficulties, challenges and opportunities)

Introduction

For over ten years, the publishing industry has been undergoing rapid and far-reaching changes that are closely bound to the emergence of the digital world. As the ASAP project sets out to explore the consequences of these changes in terms of skills and employment, a comprehensive analysis is warranted of the status quo and strategic prospects of the publishing sector in light of the digital transition. This synthetic report presents the results of such analysis.

The analysis, based on existing research, statistics and studies, also relies heavily on the experience of the Federation of European Publishers and its members as representatives of the book publishing sector in Europe. The report summarises, condenses, and—with the aim of comparing trends and developments—frames the status quo and the strategic prospects of book publishing in the digital world.

It analyses the direct consequences of the profound, radical changes taking place in the ecosystem of the book, including:

- the reassessment of the role of the main actors in the value chain of the publishing industry in its transition into the digital sphere;
- the ability to understand the changes that are taking place, to manage the adjustment to these changing conditions, to take a proactive role, and to directly participate in the redefinition that is taking place;
- the necessity to redefine their portfolio of products and services, to bring them into line with the changing conditions, needs and requirements of the new playing field;
- the need to overhaul their production and business/marketing models;
- the strategic elements required to maintain their sustainability in the mid- to long-term;
- the challenges and opportunities linked to the interaction with the new technologies.

The report, in conjunction with deliverable R2.2 *Analysis about how digital books are changing the reading and writing behaviours and how these changes impact on the publishing sector*, sets the scene for the evaluation of the competences and skills gap. Both reports have thus been kept very synthetic, focusing in particular on the aspects more relevant for the subsequent work of the project.



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EXECUTIVE SUMMARY

Publishing is fundamentally the management and dissemination of content, an investment in creativity with a core of marketing and finance. Publishers assume the costs and risks of placing authors' content on the market. To manage all the necessary functions, a publishing house needs infrastructure and to employ people with the right set of skills, and will survive by generating sales revenues that exceed the total fixed overhead plus the aggregate production and royalty costs of the books published.

The steps for the publication of a book by a professional publisher – all of them requiring skilled people and entailing costs – are: editorial (commissioning and acquisition, copy-editing, typesetting and proofreading, index-making, clearing copyright fees), production (typesetting, layout and design, printing and binding, insurance and shipping), sales and marketing (representation and generation of orders, marketing plans and promotions, publicity), fulfilment and distribution (order processing and servicing, fulfilment and delivery, IT systems, warehouse management) and financial management (paying authors' royalties, management of accounts); these are supported by a legal and copyright service.

The digital transition seems to have deeply revolutionised the world of publishing in the last decade; ebooks have actually existed for much longer, but only around 2007 did a real market start developing, driven by technological progress. Publishers had always been innovative in the use of technology, with ICT infusing every step of book production; when technology finally reached the consumer end of the value chain, the ebook market took off. Its evolution has been rapid, if uneven, and has reached remarkable proportion in countries like the US and UK and in specific sectors.

The digital transition has brought about important changes in the book publishing value chain, introducing significant opportunities for disintermediation, as digital technologies eliminate certain physical constraints, but also for reintermediation, as new players take up some of the new functions. Despite a clear disruptive potential, however, the digital transition does not eliminate or even completely subvert the essential roles of the value chain, the writing and publishing of books. For publishers, new production processes entail a multiplication of tasks, and a wide range of innovations in products, services and business models. At the same time, the cost of producing ebooks—contrary to what most assume—is not much lower than that of print books.

The strategic outlook for publishers in the digital age, while still uncertain, points at the need to undertake a fundamental evolution that takes carefully into account the creation and distribution of value across all participants, including retailers, distributors, publishers and authors. Future content consumption preferences and patterns and the evolution of the competitive landscape will be decisive elements to determine the fortunes and misfortunes of the players of the industry, together with a series of other elements. Publishers are called to take the opportunities offered by digital while addressing the many challenges it presents (piracy, viability of business models, organisational change, and so on); bearing in mind the many reasons for optimism.



WHAT PUBLISHERS DO

Publishing is fundamentally the management and dissemination of content; publishers invest; create; manage creativity; and innovate.

Publishing has a core of marketing activity, in which finance is the critical tool. The publisher's role is to place his authors' content in the market, and then, through marketing and publicity, to provide it with the oxygen that allows it to breathe in that marketplace.

The publisher provides the finance and expertise necessary to transform a writer's work into a book. This process involves a series of costs—it is the publisher's job to assume these costs and to discharge them. A publisher shoulders the financial risk of a project, manages that risk and tries to turn it into a profit.

The work of a publishing house

To manage all the necessary functions, a publisher needs an office and a warehouse. Heat, light, insurance and all the usual business costs flow from this. The most important cost, often accounting for half the total overhead of the publishing house, is the skilled people employed to do the work.

A publishing house survives by generating sales revenues that exceed the total fixed overhead plus the aggregate production and royalty costs of the books published. This profit is then either re-invested or distributed to the shareholders.

In order to generate the necessary profit, the publisher must identify a series of forward titles, i.e. new books. Here lies one of the structural weaknesses of publishing as an economic activity—continuity of production is weak relative to many other areas of business, and volatility of success across products is very high. It is estimated that possibly one or two titles out of ten make a profit, a couple more break even and the rest are published at a loss; the successful titles finance the publication of the others, through a mechanism of cross-subsidisation.

The commercial lives of many books are distressingly short. A strong backlist—books that reprint and reprint in response to continuing demand, thus providing steady revenue streams at good profit margins—is a dream for all publishers. Even then, the development of a forward list of books—new product lines—is critical. This is done either by acquisition or commission.

Acquisition means securing the rights directly from an author or from an author's agent—most fiction is generated this way. Commissioning means that the publisher has an idea that he thinks would make a profitable book and he offers the idea to an author or agent. Most non-fiction—practical and technical, as well as educational and scientific—books are commissioned, if only because an experienced publisher is more likely to know what the market needs.

For each financial year, the publisher will identify a number of new titles, each of which will be forecasted to sell a certain number of copies and generate a certain level of revenue.



The aggregate revenues of all the new titles, combined with the ongoing revenues from backlist titles, minus the returns from booksellers (the publisher sustains all the risk of innovation by allowing return of unsold copies from its customers) constitute the publisher's annual income. From that gross sum, he must subtract: the fixed costs of the business; the editorial, production and marketing costs of the various titles; and the royalties due to authors. If all goes well, that will leave a net profit which is then subject to corporation tax.

Publishing books is a risk business like any other, with no guarantee of success. Sometimes a publisher wins big but normally—even at its most successful—publishing will offer no more than a normal commercial return. At worst, it is possible to lose a lot of money very quickly.

The publishing process in detail

What follows is a brief description of the series of steps required to take a text from the form in which the author delivers it to its final appearance in print. All these steps entail a cost to the publisher, are a necessary part of professional publishing, and require skilled people—either employed directly in the publishing house or on external contract. The account portrays the publishing voyage of a print book.

Editorial

Commissioning and acquisition

Commissioning (or acquisition) editors are the key decision makers in a publishing house: they are responsible for the publishing decisions. In strategic terms, they determine the publishing policy: the areas the publishing house specialises in and—just as important—avoids, such as fiction or non-fiction, the specific fiction genres, the non-fiction subject areas, and so on. Within each category, they are responsible for the individual decisions to commission a title or, in the case of a book on submission direct from an author or agent, to accept it or refuse it. They are the essential builders of the company's forward list of titles.

Copy-editing

When the author delivers the script, the publisher must satisfy him/herself that it is structurally sound and otherwise in accordance with the original contract to publish, and if necessary enter a dialogue with the author in order to address any substantial editorial and structural shortcomings in the text as delivered. This should take place in a framework of trust, the publisher being aware that in any case it is the author's book.

Once the publisher has formally accepted the script for publication, it is passed to copy-editing. Copy-editing is the refining of the text: it means checking it, word by word and line by line, for grammatical and spelling errors, stylistic inconsistencies, obscurities, contradictions and anything else that the copy-editor feels is potentially distracting for the reader, and bringing the most substantial issues to the author's attention. In short, copy-editing is a filtering process designed to purify the text.



Typesetting and proofreading

Once the text has been copy-edited, it is then set in type. This once very elaborate craft is now a much simpler matter of manipulating the copy-edited digital file in order to present it for the first time in its final (physical) appearance. There is more to it than simply outputting the text in a sophisticated printing font: it entails styling the running headlines, placing the page numbers, choosing the depth of the four margins, from the edge of the text block to the trim of the page (always remembering that you need sufficient room in the back margin to accommodate the binding of the book), all before even thinking of illustrations and their layout.

In relatively straightforward text-driven books, the typesetter decides or works to a standard template approved by the publisher. In more elaborate, highly-illustrated books, a whole design team might be needed. Once all that is done, proofs of the laid-out pages are generated. A proof is a sample for checking; and proof reading is a careful check that all the amendments proposed to date have been carried into execution, as well as a chance to catch small blemishes previously overlooked. For the author, it is a last chance for minor textual revisions.

Index-making

The corrected proofs are returned to the typesetter who makes the necessary updates and produces a second, or check, set of proofs. At this point, all text should be in final position, so it is time to employ a professional indexer to prepare a good index.

Copyright fees

While a book is being edited, the publisher will ensure that all copyright fees are discharged, whether for in-copyright quoted text or for illustrations to be reproduced in the finished book.

Production

Typesetting

Typesetting is also the starting point of the production process: the physical appearance of everything anyone reads is the result of a typographical choice. The typesetter and/or designer decides on what font to use, the size of type and the leading (i.e. the vertical space between each line), the measure (i.e. the length of each line of type), the styling of captions and chapter openings, and so on.

There are hundreds of typefaces from which to choose and well-established conventions to guide the typographer's choice. There are considerations that need to be borne in mind. For instance, if a book is to be first published in hardback, with the intention of re-issuing it later in a smaller paperback format, the typography chosen must be capable of photo reduction to about 80% of its original size without any loss of visual clarity.

Layout and design



The differences in appearances of the average pages of different kinds of books are a function of the various categories and genres, but they are all the result of choices and decisions made by designers which are most appropriate to the work in question. For example, all the visual elements of a highly-illustrated book—the precise positioning of the principal illustration and any subsidiary illustrations, the flowing of the text around these, decisions to reproduce illustrations in cut-out, circular or oval forms, the presentation of boxed features with a stippled coloured background and a typeface different to the main text—are all matters of skilled design choice.

Printing and binding

The production department is responsible for the placing of all titles for printing and binding. This requires staff that are completely familiar with printing processes and with the rapid technological changes in this area. The department will also prepare estimates of costs for all titles on request from the publisher to assist in making the initial decision to publish. For instance, there's little point in publishing a book if the cost of doing so is excessive or if the publisher must print more copies than it can sell in order to hold its ideal retail price.

Insurance and shipping

Once the books are printed, the transportation from the printing house to the publisher's warehouse and the insurance cover required must be arranged and paid for. This can be especially relevant for the many books that are printed outside the country of publication, often overseas.

[Sales and marketing](#)

Representation and generation of orders

The publisher must employ representatives to visit the wholesale and retail book trade and generate orders. He can employ these people directly or on contract through a specialist sales agency. In addition, there will usually be a sales manager or director to manage the sales force. In larger publishing houses, there will be several of these in different divisions.

Marketing plans and promotions

To support the sales effort, publishers employ specialist marketing personnel to prepare marketing plans. These can comprise direct bookshop promotions, author tours, conference appearances and lectures. They also engage in ongoing market research in such areas as reader demographics, patterns of cover and jacket design in different genres, analysis of newspaper and magazine promotions, etc.

Publicity

All general interest publishers require publicity staff to manage the media appearances of their authors. This usually requires people with journalism, media and public relations skills.



Fulfilment and distribution

Order processing and servicing

Once orders are secured by the sales representatives, the publisher needs to ensure that he has staff capable of processing these orders efficiently and passing them on to the warehouse.

Fulfilment and delivery

Books are generally ordered in small quantities per title with numbers of titles bundled for each customer. This requires warehouse staff to pick the correct quantity of each title ordered, packet and dispatch it as a single delivery.

IT systems

Publishing has major information technology requirements that run across all departments. It is mentioned here due to the central importance of stock control and management in a warehouse with thousands of different product lines. Nor is this a recent development; publishers have been making intensive use of available computer systems since the 1970s (more on this later).

Warehouse management

In addition to IT, a warehouse must be physically laid out in the most rational way, with modern machinery required to make the process as efficient as possible.

Financial

Authors' royalties

The usual contracted arrangement with authors is that they are paid a specified sum for every copy sold. Very often the amount of the royalty will increase after a certain number of copies have been sold and/or the book reprints. It is necessary to maintain a royalty department to manage and monitor this process and to render a regular account to the author or his agent of sales and earnings.

Management accounts/Creditors and debtors

If its size allows it, a publishing house will have a financial director and a team of accountants to ensure that the company's accounts are kept in accordance with the law and with the requirements of the publisher's management and board. Again, a normal business function which requires dedicated staff.

Support functions

Legal and copyright

A publisher must also be familiar with legislative issues, at national and EU level, as a minimum in the fields of contract law, copyright law and defamation law.



THE DIGITAL TRANSITION

Since Johannes Gutenberg introduced the mechanical movable type printing to Europe in 1439, launching the Printing Revolution and laying the basis for the modern knowledge economy and society, the book embodied a near-perfect technology for almost six centuries: easy to manufacture, cheap, portable, rich in information, and accessible. Nonetheless, nothing short of a revolution seems to have taken place in the last ten years, which—among other effects—seemingly upended the publishing sector, disrupted existing business models and changed forever the way people read, with books showing up on laptops, tablets, dedicated e-readers and even smartphones. A brief look at the history of digital publishing, recent trends and market developments will help put the current situation into perspective.

Some history

Despite a lack of consensus about when the first ebook was invented, one thing is certain—it was earlier than most people think. Early experimentation started as far back as 1949, and some projects took place in the 1960s. Several sources indicate 1971 as the date of birth of ebooks: this was when Michael Hart, a student at the University of Illinois, used the opportunity of being given extensive computer-time at the University mainframe to type the Declaration of Independence. He then and sent out a message on ARPANET saying that it was now available to download and six people took up his offer. Setting up to type and make available other texts electronically, Hart contextually launched the project Gutenberg.

The 1980s saw reference books move to electronic editions on CD-ROM, while in 1986 Judy Malloy wrote and programmed *Uncle Roger*, the first online hypertext fiction with links that took the narrative in different directions depending on the reader's choice—the first interactive ebook. In 1990, Eastgate Systems published the first hypertext fiction released on floppy disk *Afternoon, a story* by Michael Joyce, and soon several companies began selling books on CD-ROMs: for example, in 1991 Voyager Company developed Expanded Books in this format, but these had little success since CD-ROM drives were not very common at the time. In 1992, Sony launched the Data Discman e-book player, and when Peter James published his thriller *Host* on two floppy disks, in 1993, it was billed as the "world's first electronic novel". The same year, a website for obtaining ebooks, both for free and for sale, called Bibliobytes launched, marking the beginning of ecommerce for books.

In 1998, NuroMedia released the first handheld e-reader, the Rocket eBook, and soon after several other devices were available, and several publishers began offering e-books. By 2000, amidst widespread optimism and rosy predictions, the ebook market seemed ready to take off and sweep the sector, but by 2002 it was clear that the promise would remain unfulfilled, at least for the time being. By then, amidst missed predictions, many players had left the market (the second biggest internet bookshop of the time, Barnes & Noble, stopped selling ebooks in 2002), numerous ventures had failed and the mood in the field became gloomy.



Several elements have been highlighted as likely reasons for this relative failure (ebooks did not, after all, disappear completely): there were not enough ebook titles available (conversion to ebook format was hugely expensive); ebooks were too expensive compared to print books; finding and downloading ebooks was very time-consuming; hardware was generally not up to the task (early reading devices, while costly to produce, often had very poor image quality and monochrome displays, whereas laptops did not offer an immersive reading experience and PDAs and smartphones were too small); little thought was given to user interfaces; marketing was not well focused (especially on the benefits of ebooks).

On a deeper and broader level, some analysts have attributed the initial failure of ebooks to their incapacity to develop a specific, viable publishing business model and to perform those societal and cultural functions so efficiently carried out by print books. Neither readers nor publishers saw the first ebook reading devices as providing a viable alternative to how people were accessing information and content from print books: e-readers did not seem a workable substitute for print books, as they did not make book reading cheaper, faster and easier, nor did they seem to offer a real opportunity to publisher for generating profit.

Other issues likely to have contributed are not listed here; in any case, the ebook market went into a sort of standby, until in 2007, Amazon launched the Kindle ereader and the Kindle Store (initially with more than 88,000 titles available). The same year Bookeen introduced the Cybook Gen3 in Europe, while Sony had released the Sony Reader PRS-500 the previous year. In the next few years several other players joined the market: Apple with iBooks, Kobo, Barnes & Noble with its Nook, and Google with Google eBooks (now Play Books). And thus, started the decade in which ebooks really took off: ebook sales became a significant part of the book market, tens of millions of e-readers were shipped worldwide, virtually all publishers got into the ebook business, millions of ebook titles became available and, generally speaking, ebooks became an outstanding feature of the book and publishing sector. We'll look into some figures later on, and now we'll focus on the main features of this ebook "revolution".

The digital transition in the book market

From 2007 on, the ebook market finally seemed to maintain the promises it had failed to keep half a decade earlier. Starting in the US, but following soon in the UK and—with some delay—in the rest of Europe, ebook sales boomed: growth rates in the double digits were the norm in the first few years, and in certain segments, territories or periods growth reached even the triple digits (for example, in 2009 ebook sales in the trade sector increased 213% over 2008 in the US, and in the UK the first semester of 2011 saw consumer ebook and audiobook sales increase 600%).

Technology and innovation can be considered the main drivers of this digital transition: if the absence of convenient e-reading platforms had limited the potential for a revolution until recently, the emergence of new mass-market devices, such as dedicated ebook readers or multipurpose tablets, eliminated one significant obstacle. With technologies



finally ready for “prime time”, such devices started becoming commonplace, to the point that by 2010–12, many analysts were expecting penetration rates of digital books around 10 or even 20% by 2015, 2020 at the latest. In fact, in those first transition years, conditions were perfectly aligned for readers to embrace digital devices: prices had sunk below consumers’ purchasing thresholds, while the reading experience and ergonomic design kept improving. New devices incorporated indeed technology that allowed for a more enjoyable, user-friendly experience—closer to reading on paper. At the same time, digital books both new and old were becoming very easy to obtain, in some cases even for free (several initiatives made available digital versions of out-of-copyright classics).

Several technology trends added up to give impulse to the ebook market take-off: the increasing sophistication of reading devices was accompanied by a similarly increasing availability and sophistication of ebooks, as well as growing penetration of the internet and a swiftly increasing uptake of technological devices by consumers; these were in turn much more accustomed than a few years before to purchasing goods and services online. All of this was reinforced by the fact that early adopters of digital reading devices and multipurpose tablets mostly were already heavy readers, were more affluent than average and tended to be in their 20s and early 30s, a group that valued the flexibility of reading in different settings and the new devices’ ease of use.

The rapid transition opened the way to possible positive trends, above all a prospective boost in book consumption: many readers equipped with digital devices (ereaders and tablets) declared reading more than before, and it seemed that a majority of consumers were willing to pay for their ebooks.

Granted, the transition was not uniform in all sectors: emerging consumer behaviours affected and keep affecting literary genres differentially. Distinct adoption rates and business models have characterised fiction and non-fiction works, guide-books, illustrated books, children’s literature and so on. Reference books, such as encyclopaedias and maps, were among the first to migrate to digital formats (even earlier than the late 2000s, in some cases), and are now widely available for free on the internet, which has dramatically depressed print sales. Meanwhile, the static nature of first-generation electronic formats made both publishers and consumers focus first on fiction and non-fiction, still today the most widely read genres on digital formats; whereas digital offerings for other genres, such as lifestyle guides, illustrated books and children’s books, were initially limited.

The STM sector was very quick to go digital, especially as far as journals are concerned; the kind of reading experience meant that desktop and laptop computers were more than sufficient for users—which possibly explains why at the beginning most digital reading was made on those devices. The digital transition in the non-trade sector (including scientific, technical, educational and reference books), already started in the 1990s, was thus well under way when the revolution touched the consumer book sector; it had been impulse by elements such as ease of access (from university and research centre workstations), search options (for reference works, research papers) and storage capacity (for educational and



academic books, technical manuals). The educational sector looked especially promising, given among others the possibilities offered by digital in alleviating the students' burden and in providing personalised learning experiences via digital learning platforms; the uptake of digital textbooks was however limited by other kinds of issues, more related to policy and infrastructure. In any case, the full digitisation of the production and dissemination of scientific research, and the increasing digitisation of educational institutions and learning environments were two of the forces behind the digitisation of the publishing industry.

The rise of digital in the trade sector (fiction and non-fiction) was in turn accompanied by a strong adoption rate for portable devices, dedicated ereaders and, to some extent, other kinds of devices. Only a few years into the digital era, dedicated devices had become the most popular reading platforms. It also evolved in parallel with an increase of the number of publishers offering digital books—soon becoming the vast majority in all the major markets (by 2013 already more than 90% of British publishers were publishing ebooks). At the same time, the number of ebook titles grew massively, and many titles were offered as apps.

We'll see in the next sections where all this has brought us so far.

Technology in publishing

It is first of all appropriate to recall and further highlight the fact that technology and innovation have always played an essential role in book publishing. Whereas the final product (the print book) seemed not to change much for a few centuries (but this is also not completely true—the introduction of paperbacks being a prime example of product innovation in the sector), the production process has been constantly renewed by adopting the most advanced technologies.

With the development of printing technology, books have undoubtedly become much cheaper and smaller while at the same time containing the same or a greater amount of text, with an evolution reminiscent of Moore's and Kryder's laws and the similar processes of increase of capacity of media for content storage and declining prices. This is how, for instance, in the 15th century, the price of two vellum copies of the Gutenberg Bible equalled the price of a stone mansion; today, the prices of books are almost negligible in comparison.

Just like any other relevant technology, ICT was rapidly adopted in the publishing value chain for as much as it could help improve production and distribution, increase efficiency and reduce costs, and in general bring about the benefits of innovation. For example, the traditional supply chain is changing in terms of the digital revolution in the industry: the first impact was the withdrawal of printing plate manufacturers from the supply chain; furthermore, the e-commerce techniques improved the logistic system and customer relationship management. Digital technology did accelerate the effectiveness of the supply chain, arguably transforming it completely. New tools—ranging from electronic data interchange, to new cutting-edge ink-jet technologies—have reduced supply-chain costs



and eliminated steps in getting books from manufacturers to consumers. Improvements in printing technologies, in particular, are giving publishers new ways to manage the supply chain, both domestically and, increasingly, internationally. New digital print platforms have far less waste and require less set-up time than older ones, and that higher productivity allows lower prices to be passed along to publishers.

So, while initially the impact of the advance of the internet and the related technologies was generally limited to new distribution and promotion channels, with the product itself and the business model remaining rather unchanged, innovation continued to take place in every other stage of the value chain.

In fact, far from being technologically conservative, book publishers have by and large openly embraced digital technology in editing, production and marketing: from virtual editing tools and e-platforms and online iconographic archives, from content management systems and digital archive management tools to multimedia elements and the widespread adoption of XML, from digital printing to online marketing via websites and social media, from content aggregators to online bookstores, every stage of book production has been infused by ICT. As a matter of fact, in the whole process of producing and marketing a book, only the platform itself — the book printed on paper — remained mostly analogue until relatively recent times.

But now the final step has been taken, and digital has reached the end user. We'll see next where these changes have brought the publishing sector.

The ebook market now

As we saw earlier, the ebook market started growing significantly year after year since 2007; so, where are we now and what is happening in the present? The market developed first and most quickly in the US, where ebook sales are now some 23% of the book market. In Europe, the only similar experience has been that of the UK, where digital sales represent today some 17% of the book market (ebooks alone stand around 12%). In other European countries, ebooks represent a relatively small percentage of the total book market: they make up between 3% and 5% of consumer book sales in France, Italy, Germany and the Netherlands, and 3% of total book sales in Spain; the share in most other European markets is lower.

The difference between the US and the UK and other markets can have several explanations, including the wider availability of content in English, the fact that people in the US and UK tend to be technology early adopters and to shop online very frequently, as well as a relative lack of physical bookstores, especially in comparison with the main continental EU markets. It is, however, also important to point out that the switch to digital is neither a linear nor inevitable process for books, the way it could be for music and film. With books, the medium cannot be fully separated from the content, and readers' preferences—the element that matters the most, ultimately—indicate that paper books are still the favourite, by a good margin.



Indeed, the ebook market has gone a long way since 2007: estimated at some 1% of the overall book market in Europe in 2011, it is now around 6–7%. Growth has been fast, although not as much as some had predicted. While it is very hard to foresee how the market will develop in the coming years, it is clear now—and to many it was before, too—that print books are not going away any soon; we have actually passed already several dates in which the demise of paper had been predicted, and there is no sign of that happening.

On the contrary, market data from the US and the UK indicate a slowing down of ebook sales in 2015 and 2016 (in particular, 2016 closed with a -4% in the UK and -16% in the US, where ebook sales represented 27% of book sales in 2015); at the same time, print book sales, somewhat depressed in the last years, have shown strong signs of resurgence. This phenomenon, linked in part to an increase in the price of ebooks, could signify that the most advanced markets have reached maturity. It is certainly not the case in other markets, where ebooks still show healthy levels of growth, and interest (for example in Italy and France ebook sales still grew 21% and 12% respectively in 2016), which reveals the potential for further increases (also given the proportion of people having read ebooks: 10% in Italy, 21% in France). Moreover, several sources point out that the ebook market may not be declining at all in the anglophone world, but that simply there is no way to accurately estimate the real performance of the market, due to the increasing share of sales of self-published ebooks, which are much more difficult to account for.

All in all, it is safe to say that claims of an end to the ebook fade are most likely as premature as previous allegations about the downfall of print. It is also worth noting that it is very difficult to obtain reliable data about ebook sales; this means that everything is said on the subject should be taken with a pinch of salt. Again, several reasons account for this, including the fact that the major retailer in the field—Amazon—does not provide detailed sales figures, and the fact that sales of self-published ebooks (even more dominated by Amazon) can easily not be captured by surveys or at least be largely underestimated.

In any case, ebooks are an important part of the book market, and publishers are fully engaged (the vast majority of publishers now publish digital books—more than 90% in mature markets like the UK). Many players in the industry also expect the market share of ebooks to keep increasing, and many publishers report that ebook sales make up today a significant part of their turnover. There are differences between sectors, of course: ebook sales are particularly relevant in fiction, especially in genres like science-fiction, crime, romance and erotica; academic books have experienced a significant digital migration while the actual adoption of educational books, which has boomed in many countries, depends on several factors, including the preparedness of the educational systems (in terms of infrastructure, teacher training and so on). Other genres, such as illustrated books, are much less adapted to moving to digital, and the transition has involved children's books relatively little as well; in this case, if there is huge potential for innovative solutions for children's books (animation, interactivity, etc.), and indeed a lot is going on in this sense, but the market hasn't picked up in proportion, probably because print books are seen by children and even more by parents as a moment of respite for kids from screen exposure.



Ebook sales and print book sales have been evolving more or less with opposite dynamics in these years. While this does not necessarily mean that there is a full cannibalisation effect, there is a certain degree of substitution of digital sales for print. This is once again especially true for certain sectors and genres (paperbacks, specific genres like those mentioned before). The promise that ebooks would simply open new markets and attract new readers was probably too optimistic. Realistically, digital sales will—to a certain extent—replace print sales, but also increase net sales in certain areas. Time will tell the overall effect on the industry.

Another recent trend shows a rapid decline in the sales of dedicated ereaders such as Kindle, Nook or Kobo. For example, e-reader ownership in the US fell from 32% in early 2014 to 19% a few months ago, and in the UK in 2014 tablets overtook dedicated ereaders as preferred device for reading ebooks, with smartphones taking the lead in 2015. All in all, it seems that ereaders peaked around 2011-2012, after impressive growth rates in just a few years, and then started declining almost immediately. Waterstones stopped stocking Kindle (after about two years) in 2015, and Sony dropped production of ereaders already in 2014; but again, whether this new trend leads to the complete disappearance of dedicated devices, it is early to tell. After all, dedicated ereaders are still the device of choice for ebook reading in smaller markets, such as France.

Finally, a word on the retail sector—if the Kindle's popularity may be dwindling, Amazon remains by far the main ebook retailer all over the world. It holds huge market shares in the US (at least three quarters of the market) and in the UK (upwards of 80% of the market, and according to several sources up to 90% of it), and big ones in most other markets. Only in Germany has a player been able to oppose a serious competition to Amazon. Tolino, a homegrown open platform for ebook sales, was reported in late 2014 as having overtaken Amazon's ebook sales (though there have been doubts about the data), and in general has gained a significant share of the market. Other players with relevant market shares are big operators like Apple (with iBooks), Google (Play), Kobo and Waterstones. They are all small compared with Amazon, however. At the same time, many small, independent booksellers are investing to be present on the market, though uncertain about its profitability, and many publishers sell their ebooks directly to users.



DIGITAL PUBLISHING

Regardless of the size of the ebook market—and of the uncertainty surrounding market data in the field—there is a consensus that the digital transformation has deeply affected the publishing sector, the way books are produced and marketed, distributed and read, and the business models underlying it all. While the transition can mean different things to different players, most agree that it is a global, very relevant issue, that is changing the way the book value chain does business, in terms of responding to consumer demands, creating new revenue streams and altering the existing ones, and developing new product opportunities. In this section, we'll look into what digitisation has brought about in the publishing business and value chain.

The role of publishers and the new value chains

The traditional value chain of book publishing connects authors, sometimes via literary agents, to publishers, who in turn work with printers (though this function is sometimes internalised), distribution companies (also sometimes internalised) and booksellers, which cover the final step toward the consumer. In some sectors, in particular scientific and academic publishing, customers (usually research libraries and institutions) are often connected directly with publishers. In educational publishing some models skip the retail phase, with public administrations buying directly from publishers or distributors.

In the digital world, the elimination of physical constraints would seem first of all to create opportunities for disintermediation along the value chain; the most notable examples include: authors who cannot or do not want to find a publisher can reach out directly to distributors, retailers or readers through self-publishing tools and techniques; publishers can in principle take up distribution themselves from their websites (this could be done for print books, too, but it seems even easier to handle in digital); and even readers can be involved directly in the process of writing a book (numerous experiments are being made with participative writing, often in conjunction with crowdfunding).

Nonetheless, the digital transition also introduced the need to adapt several aspects of the production and distribution processes, as well as a number of new roles and functions. First of all, the production of digital versions of books is a new function, which parallels the production phase in print but with its own specificities, culminating in the creation of one or more digital book files; this function encompasses its own editorial steps in addition to the traditional ones, and is accompanied by further tasks: archiving of ebook files and addition of metadata to describe and index them. Ebook distribution is another new step of the value chain. It often involves the addition of technological protection measures for copyrighted content as well as digital systems to allow managing different reading solutions and access and commercial models. Selling ebooks is yet another new function, sufficiently distinct from that of selling print books: managing orders, delivery, payments and customer care imply tasks and infrastructures that depart both from those of brick and mortar bookstores and—to a lesser extent—from those of ecommerce sites offering physical goods. Somewhere along the value chain, someone also needs to provide the functions of



cataloguing and full text search of ebooks, built on the metadata, to allow final users but also sellers and distributors to find the ebooks they're looking for. Another new role covers the final step towards the consumer: placement on ebook devices, which encompasses the production of reading devices and software. Finally, existing functions deeply affected by the digital transition include the promotion and online placement of digital books, which can use the traditional channels, but open also to many new possibilities.

All of this opens the possibility for significant phenomena of reintermediation, as all the new or modified functions in the digital environment can be taken up by new players, and in fact experience shows that so far this effect has prevailed, making the digital book publishing value chain more complex than the print one, rather than the other way around. Hence the appearance of new players, dedicated to specific functions along the value chain: providers of digital conversion services (small publishers in particular often don't have the resources to do it in-house), digital archival, metadata management, digital distribution (so-called aggregators), as well as pure online stores, providers of Digital Rights Management systems, producers of reading devices, and many more.

All kinds of operators have taken up these new roles; sometimes existing players did it, but often outsiders have entered the value chain at one or several stages—from software producers like Adobe (DRM), to pure internet players like Amazon (ecommerce, from a basis of online print book sales, and reading device production), to technology companies like Sony (reading devices, now discontinued) and Apple (devices, though not dedicated, and ebook store), to search engines like Google (digitisation, ebook store), to internet service providers and telecommunication companies like Deutsche Telekom (distribution), a plethora of new players have entered the ebook market.

Despite a clear disruptive potential, the digital transition does not eliminate or even completely subvert the essential roles of the value chain, the writing and publishing of books. Looking at publishers in particular, publishing is fundamentally the management and dissemination of content. The digital world offers new delivery platforms, but does not eliminate the need for someone to host, manage and disseminate the digital material. Publishers essentially select, shape and distribute quality books adapted to specific audiences and markets. In-copyright digital material still requires a business structure to prepare it, check it, disseminate it, sell it, collect the revenues and disburse the appropriate payments to the copyright holders. Many of the functions associated with traditional publishing remain in place in the digital world.

Publishers in the digital age

Having established that the job of a publisher involves many tasks, and that most of them remain, sometimes unchanged, in the digital age, we'll look now at the main additional tasks that the digital transition has brought about when it touched the final product, the ebook. Because many publishers maintain that the digital transformation hasn't created less work, it has actually created more.



New production processes

We've seen already how technology is involved in each step of the book production process. If book content does not need to be redeveloped (although in some cases it requires some profound rethinking), and the starting point for producing an ebook is the final file the publisher delivered to the printer in InDesign, PDF, or the like, this is really only the beginning of a process that takes multiple directions.

If publishers and authors want ebooks available broadly, through as many outlets as possible, the publisher must manage every one of those customers individually, which means also managing their technical requirements individually. With printed books, publishers ship the same product to different retailers; that is not the case with ebooks. Since ebook retailers—especially the big ones—use different file formats, having ebooks available in as many retailers as possible means creating a minimum of three different file types based off the original printing file.

Just the proper production of separate ebook formats can thus require a dozen additional steps in the workflow process, before production, metadata, file upload, or customer-specific requirements. To that one must add the quality assurance process, a separate broad checklist across a number of devices. The technical steps for the creation of files and the proofing steps to ensure their editorial integrity, as well as the related quality control steps, must be taken for every different ebook file format. Quality assurance is also supposed to be run for every device to which a publisher outputs; in the current market this means going from a minimum of 10 combinations of formats and devices upwards. Moreover, as automation and technology have not yet provided a comprehensive solution, most of these processes are—at least in part—manual.

Another important feature of ebook production is metadata, i.e. all the information related to a specific book: title, author name, ISBN, description, marketing copy, author bio, cover and other images for a retail website, and so on. Metadata are essential for consumers to find the books they're looking for, and for retailers and distributors alike. Managing metadata can be challenging partly due to inconsistencies in how online retailers handle them, especially if they have unique requirements; once again, these most often must be handled through human intervention. Metadata are also still problematic for many publishers, and even present some issues at industry level. Nonetheless, they really are the key to the discoverability of ebooks, since they are the basis of how books and ebooks can be found online.

Besides all this, the digital transition permeates several other areas of work of a publisher: editorial work for digital versions can have its specificities, and certainly marketing and sales processes are deeply affected and require focusing on different tools and techniques (including social media). Altogether, digitisation multiplies the tasks required of publishers, and hence the skills needed, as well as very often implying significant levels of investment.



Innovation in products, services, business models

At the heart of the digital transition of the last 10 years, and as the most visible output of the digital transformation of publishers, lies the ebook, the tangible manifestation of product innovation (again, without forgetting that innovation had been taking place all along the production chain way before). In essence—stating the obvious—the ebook is a digital, immaterialised version of a book. Its basic characteristics, shared with many kinds of immaterial content, include the capacity to travel the internet at immense speed, to be stored in huge quantities easily and at relatively low cost, and many more.

Whereas content remains the essential component of a book, in digital as in print, ebooks—both as a product and as a commercial proposition—are more than simply the transposition of print books to the digital environment. The exact extent of this difference depends on several factors, including the publishing sectors and genres concerned, business strategies, consumer preferences and expectations and so on. However, the move to digital is pushing the book to evolve in several directions, thus redefining the products and services offered by publishers and other operators of the book value chain. This redefinition is closely connected to the transformation of the existing business models and the emergence of new ones.

For a start, the digital transformation tends to provoke a shift from the sale of products towards the commercialisation of access models: consumers seem oriented towards buying access to content. In addition, such access can now take place on a multitude of devices: PCs, laptops, ereaders, tablets, smartphones—each with its specific features and requirements. In fact, consumers expect to access content ATAWAD—anytime, anywhere, any device—and with ebooks this is totally possible.

Ebooks are not simple PDF versions of print books, although this format is still quite popular (especially in fiction), due to its capacity of maintaining fixed layouts. In fact, EPUB files are currently the most widely accepted ebook format on the market. It is the industry standard, developed by the International Digital Publishing Forum (recently merged with the W3C consortium) and used by Apple, Kobo, Barnes & Noble and Google for their ebook distribution platforms. A free and open standard based on HTML, EPUB is a highly flexible format that supports a wide range of features: it can optimise a book's text to fit a device, embed images, and allow for bookmarking, highlighting and text-to-speech. The latest version, EPUB 3, permits adding multimedia content like video and audio clips, and has advanced accessibility features embedded.

Many publishers have thus been exploring the potential of ebooks to become enriched, or enhanced, by a wealth of features and functions: from simple (but interesting) elements such as the possibility to adjust the font size for people with sight impairments, to the inclusion of audio and video resources, to the addition of interactivity (for example exercises in digital textbooks, or gamification), to personalisation of the reading experience, all the way to the use of augmented and virtual reality; the possibilities for innovating the



book and the reading experience are enormous, and a lot of experimentation is currently taking place on the market.

This goes hand-in-hand with the innovation in services: digital bookstores are the most obvious and (seemingly) indispensable new service, allowing the purchase of digital books, and often access to ebooks is also possible directly on the website of publishers; at the same time, consumers have the possibility of creating their digital bookshelves, increasingly often hosted via cloud services; and digital libraries are also becoming more and more popular, as publishers offer licences for the loan of ebooks as well. Most publishers and basically all booksellers offer the possibility to browse ebooks online before purchasing them, so as to at least partly reproduce the experience of visiting a physical bookstore.

As publishers become capable of managing individual components of a book as separate pieces of IP, the permanent purchase of single titles is no longer the only business model available: readers can buy (or licence) single chapters (for example of travel guides, or academic texts), and some authors and publisher are testing a model by which one or a few chapters are given for free to stimulate the purchase of the entire work. It becomes also possible to rent ebooks, at a lower price than a definitive purchase. Another option sees the bundling of print and digital books, for instance with the ebook being given at a strong discount or even for free with the purchase of the print version. At the other end of the spectrum, experimentation is also ongoing with ebook subscription models—in streaming or with download: several operators offer limited or unlimited access to more or less wide selections of ebooks at a fixed fee, an all-you-can-eat for ebooks similar to Spotify. Examples (with ebooks and audiobooks) range from the Amazon Kindle Unlimited to a series of local European players, such as Cyberlibris (Belgium), Izneo (France), Nubico (Spain), Mofibo (Denmark), Storytel (Sweden).

In addition to new services for consumers, publishers offer to libraries the possibility to lend ebooks—again based on different licensing models (the legal framework in this area is currently evolving, but it is early to assess the possible effects of this). Finally, publishers are also offering services to self-published authors. While this may sound like a contradiction, several publishers (and other players like Amazon) offer authors the possibility to select only some of the services that constitute the full publishing experience.

The cost of ebooks

It is appropriate here, while talking about the impact of digital on publishers, to briefly address the issue of the cost of ebooks compared to print books. It is widely thought that ebooks, because they are dematerialised, should be much cheaper than print books; consumers certainly expect significantly lower prices (more on this later). However, by looking at the list of tasks accomplished by publishers in the process of bringing a book from the author to the readers, it appears obvious that the majority of activities are not rendered obsolete by the switch to digital.

First of all, publishers still have to pay advances to authors (often higher in percentage with ebooks, because of the lower average prices). Publishers pay overhead and employees, in



the digital world as in the physical one. Editing and graphic design are also functions still needed, and can require several people. The marketing department will still create brochures, magazine ads, posters and ads for online markets. The publisher will still pay a percentage to online outlets for carrying the ebook, which can range as high as 50% of the cover price. Financial and other support functions (legal above all) are still present and as relevant (or more). And, of course, part of the profits (if any) will go to the authors in the form of royalties.

Basically, except for ink, printing, physical storage and shipping, the costs incurred are pretty much the same. According to publishers, printing a book accounts for only about 8% of its cost, and the total “physical” costs are likely around 15 to 20% maximum. On the other hand, digital publishing involves a series of additional activities and related costs (as we’ve seen before): from the tech people who must create the ebook in multiple formats for reading on a multitude of readers, to the digital storage, to the ICT infrastructure for producing or converting ebook files. Whether these tasks are internalised or outsourced, the costs can be significant. So, if all in all ebooks can be somewhat cheaper to produce, this is nowhere near what many think.

All of this, as we will see in the next section, has consequences for the strategy of publishers in the digital world.



STRATEGIC OUTLOOK

The impact of the digital transition on the book publishing sector, as we have seen, is evident and significant. Still, the publishing industry seems unlikely to suffer the same upheaval as the music industry experienced when it moved to digital, for several reasons: most readers' continuing attachment to paper, the complementary nature of e-books and paper, and limited electronic piracy (only compared to other sectors). The transition could thus continue fairly smoothly, while digital reading might still increase the overall reach of books. It is nonetheless a journey into a new territory, and publishers (together with the other players of the value chain) need to rethink their business models and their relationships with one another, and to address several critical challenges. The stakes are high, since they touch upon the redistribution of value among players, a redesign of their roles and, potentially, an evolution in the way content is created, as well as the possibilities to produce new value (and/or destroy the existing one).

Strategic drivers

Early in the digital transition, it was a commonly accepted notion that ebook sales were supplemental, a nice bonus using book files that had already been created for the print edition. But those publishers deeply engaged in both print and ebook know differently.

To benefit fully from the digital switch, the book industry needs a fundamental evolution that takes carefully into account the creation and distribution of value across all participants, including retailers, distributors, publishers and authors. How the new digital profit pool will be divided remains to be seen, but several players are taking positions.

Powerful digital distribution platforms have already emerged, and have acquired (or are trying to acquire) dominating positions: Amazon has benefited from its first-mover advantage with the Kindle, Apple is propelled by the success of iTunes, and Google is also looking to position itself beyond its Google Books experience (with a view to become the gateway to searching all book content). These platforms use data-mining algorithms to extract new kinds of consumer insights, thus seeking to take up the advisory role of the traditional bookseller.

Digital distribution will have an economic impact on traditional publishers, whose business models are based on economies of scale and will therefore suffer from a possible decrease in physical volumes. The digital migration could therefore accelerate the consolidation of distribution networks around the players with the greatest economies of scale, including in the physical world.

New technologies could also to some extent weaken the position of publishers in the value chain. To maintain their leading role, publishers must therefore not only redeploy resources to digital channels, but also create new products and services for authors and readers alike, making the value provided very clear also in the digital environment and seizing the opportunities of creating direct links with their customers.



Consumer preference is an essential factor—and successful publishers must meet the needs of both digital-first subscription customers and those who want to own physical product. Successful digital content businesses must place consumers at the centre of their strategy. Failure to meet consumer needs, or consumer frustration, can stimulate piracy and create openings for disruptive new industry entrants.

Future content consumption preferences and patterns and the evolution of the competitive landscape will be decisive elements to determine the fortunes and misfortunes of the players of the industry. Other relevant elements will be what education and learning will look like in the future, what digital natives will read, how and how much, how the role of technology will evolve within the industry, how regulatory frameworks will develop and more. How publishers respond to all the challenges and opportunities will shape the industry and the book of the future.

Challenges and opportunities

One of the main challenges today is the ebook price setting (and related revenue sharing). Readers, like most consumers, want a good product at a low price. Low prices are one thing, fair prices are another. Publishers, like any business, have a significant amount of overhead costs. When they take on a new author, they are never guaranteed that the work generated will be successful. Publishers take an enormous risk by signing an author. Through the printing, editing and distribution process, they incur significant costs. These factors go into the final price that readers pay for a print book. With the advent of ebooks, consumers see that there is no printing and distribution involved, so they expect lower prices. In many cases, the perception goes to the extreme of thinking that all digital content should be for free.

As we've seen, producing ebooks is not that much cheaper. Nonetheless, in many cases ebooks are priced lower than print books. Partly due to actual cost savings, but often in order to meet consumers' expectations (this is without considering the aggressive pricing policies of self-published authors). Opinions differ widely on what discount levels to apply to ebooks, but discounting risks a race to the bottom, and many worry that ebooks may be sold too cheaply, because low prices could communicate to customers that the value of a book is in how it is made, not what it contains. The massive increase of titles available due to the explosion of self-publishing also risks devaluing content, as there's too much of it and too little time, thus generating additional pressure to keep prices low.

In the medium term, the book industry will have to reinforce the perceived value of digital formats to ensure profitability and growth. This means understanding what consumers will be willing to pay, and for what features and services. The market will possibly level out once consumers and the industry find a price they can all be happy with.

An issue that deserves mention here is that of VAT. In the EU, Member States are currently allowed to apply reduced VAT rates to print books (26 out of 28 of them do so), a possibility not given for ebooks. This can entail a differential of 10 to 20% in the level of tax levied,



which reflects on the prices and can completely offset the possible savings of digital publishing. At the time of writing, a legislative proposal is under discussion to eliminate this discrimination.

The issue of pricing obviously affects margins and the viability of business models, another fundamental challenge for publishers in the digital era. At its core is the dynamic between the value of content and the expectation of gratuity (or very low prices), or in other words the willingness of readers to pay for ebooks. Finding the right equilibrium, the lower production costs might result in higher margins, even at lower prices.

The main model for the time being consists of individual sales of ebooks, and it depends on the continued will of users to pay for digital content—which seems to hold, at least for books. As we've seen before, experiments are being made also with the sale of parts of books (this is basically inapplicable to fiction books), and alternative models like crowdfunding are also on the table. In the framework of the traditional sales model, the main question is whether to adopt the standard wholesale model (with retailer discount) or the agency model, in which publishers set the price of the books, and distributors get a fee from the publishers on every book sold (about 30%); positions and preferences are quite divided among publishers. Ebooks are generating profits for many publishers (possibly less for retailers), but it is still early to tell whether the current models will be sustainable in the future.

The main alternative model being tried now is the subscription model, which offers access to a more or less ample selection of titles at a fixed monthly price. Subscription services are on the rise, though again, their sustainability is yet to be demonstrated. Many publishers think it will become a viable model in the future, but many others are still wary about it. For the time being, the situation is very fluid: some experiences appear very successful (in particular some involving audiobooks, like the Swedish Storytel), whereas others are struggling—with the exception of Amazon's Kindle Unlimited. Oyster, launched in 2013 and soon hailed as the "Netflix for books", closed after a couple of years; meanwhile, in a move designed to compete with Amazon, Scribd introduced Scribd Selects, in which members now get unlimited access to selected titles plus three books of their choice per month. Several others are still present on the market (see above), however.

According to some analysts, subscription services that compete on price and selection (such as Amazon) will dominate the market, while those that offer a smaller selection will struggle to gain traction. One important aspect of these services resides in the convenience offered to users not to have to click every time they want to access content, and the times a reader needs to make a decision are not as many as for a music listener. So, subscription services such as Spotify and Apple Music might make more sense in their industry, as they eliminate the need for hundreds of daily decisions. Amazon's stranglehold on ebook sales is another reason for the difficulties of other services.

Publishers have also been experimenting with apps, another possible way of commercialising ebooks, capitalising on the ubiquity of smartphones and app stores. Recent



data seem to indicate a decrease of the share of publishers producing apps, likely signalling that many are concluding that they are not worth the investment—probably because of the public’s low willingness to pay (or at least to pay any significant price) for them.

On the other hand, multimedia and interactive content keep increasing, as publishers have found that digital technology makes producing and delivering audio much more straightforward, and are in general pushing the boundaries of books to offer always innovative solutions to readers.

Ebooks in fact offer publishers the opportunity to offer their readers highly innovative products. The possibility to re-envision the book concept can have very different applications by sectors and genres: from gamification in children’s books, to interactivity and personalisation in educational books, the potential—as seen when talking about product innovation—is huge. This applies also to the potential for ebooks to incorporate accessibility features for the visually impaired.

Publishers can also take advantage of the digital world and create websites and social networks for readers, both to stimulate demand and to establish a direct link to consumers. Publishers now have an opportunity to become an even purer business-to-consumer business, selling products and services directly from their own platforms.

All of this will be highly beneficial if it contributes to strengthening certain trends, such as the fact that people who read e-content spend more time reading, and owners of tablets and ebook readers stand out as reading more, while device owners are also more likely to buy books. Moreover, those who read ebooks may tend to make their acquisition an impulse purchase. The reduced price, the large number of choices and the simplicity of the buying process can encourage readers to acquire more books than in the case of printed editions. But again, a lot will depend on the evolution of people’s digital habits, including the competition posed to book reading by the omnipresence of digital devices.

Other potential advantages are those related to the stock and sales volume: having books only in electronic format means that there is no longer a need to estimate and plan for the necessary print volume, so publishers will not have leftover stocks and returns from retailers (which publishers reimburse) and will be able to deliver the books almost instantaneously to readers or distributors. Also, in digital, titles may never need to go out of commerce, and in principle there are good chances to exploit the so-called long tail (small volume sales distributed across a large number of titles).

The other side of the coin to users’ willingness to pay, piracy is a very important challenge for publishers who enter the ebook market, which has to be taken into account before establishing a medium or long term strategy. While there is no decisive way to measure the size and scope of ebook piracy, two issues seem to gather consensus; while piracy is not as prevalent as it used to be in the music and film sector, it is nonetheless significant, and increasing in parallel with the popularity of ebooks (already in 2011, it was estimated that 60% of ebook downloads in Germany were pirated through file sharing websites, and this



year a study by Nielsen and Digimarc estimated the loss revenues from ebook piracy in the US at 315 million USD).

Piracy poses a problem of loss of revenue, and raises strategic questions as to how much to invest in fighting it, as well as how. One key issue is that of Digital Rights Management (DRM) systems, such as Adobe DRM, which are put in place to protect content. Since their efficiency is marginal (software aimed at stripping ebooks of their DRM protection is available and easy to use) and they can negatively affect users' experience, DRM systems are met with ambivalent attitudes by publishers and their prospects are unclear.

One issue with DRM is that they can hamper interoperability—the possibility to access content on different platforms and with different devices. The lack of interoperability in the ebook market means that readers often cannot read their legally purchased ebooks on different devices, or that they are locked in with a specific vendor's platform for their purchases. For publishers, it means the need to produce several different ebook formats for different retail platforms. Amazon is the most problematic player on the market from this point of view. Achieving full interoperability in the ebook market will be a key challenge for the coming years. Industry efforts are under way to develop lighter and interoperable DRM systems; this could be a very positive step in the right direction. Additionally, publishers have a strategic interest in the evolution of content standards and improvements to interoperability across other connection points in the value chain, such as content storage.

A related challenge is that of the concentration in the ebook retail sector. There is a degree of alarm at the ever-rising dominance of web-based giants, including Amazon at the expense of brick-and-mortar retailers. With market shares for ebooks such as those mentioned above, Amazon is in a position to take advantage of its size (recent competition cases have highlighted the matter), which can become a threat to the diversity of the book retail sector.

On the technology side, additional challenges for digital publishers lie in the fields of content storage, content agility and metadata. Content storage often spans multiple platforms, locations and departmental silos, including ERP systems, file shares, drives, web CMS, and shared drives; current challenges with content storage include the 'gluing together' of multiple systems and sources and the move to more granular content (e.g., XML, XHTML). Collaboration with third party vendors is an added challenge and the lack of standardisation regarding how and where content is stored increases complexity.

Content agility is the ability to easily reuse and repurpose content to optimise the advantage of organisational information and assets. It has business benefits such as shortening the time to market, enhancing new product development, and improving customer-facing elements like personalisation (for example, by enabling use and reuse of the same content across multiple channels and formats). A primary challenge here relates to the right sequencing of elements such as improving storage, tagging metadata, and then enabling discoverability. Another major challenge is content rights management and



permission-to-use select pieces of content, allowing high levels of content granularity. The current process for repurposing content is reportedly highly manual.

The importance of metadata has been hinted at already. Challenges include inconsistent standards, updating archives, requiring new skillsets, and evolving technologies, as metadata standards, internal or external, are in constant evolution. Most content is still tagged manually, which is a cumbersome process; publishers are now evaluating new technologies to help with semantic enrichment and automated ways to add metadata.

Publishers will also need to face the strategic challenge of self-publishing, the possibility given to authors by technology to reach their users directly. The phenomenon is undoubtedly very significant—even though its measurement is still uncertain. In any case, it has provoked a massive increase in the number of titles published, and represents a relevant share of ebook sales in volume (due to the very low prices).

While at first sight this can appear like a huge risk for publishers, several factors seem for the time being to mitigate the effects. For a start, many readers recognise the added value of professional publishing in ensuring the quality of books, which limits the degree of substitution between the two categories. Moreover, often the most successful self-published authors seek to sign a contract with publishers to continue their writing careers, due to the security offered by such contracts and the higher earnings prospects, as well as the wide range of services offered by publishers.

On the other hand, self-publishing offers publishers the possibility to scout for new talents while reducing the initial uncertainty (and thus risks) about the potential of a new author. Moreover, publishers can still provide self-published authors with part of the services they usually perform for their authors. Authors may not be able to manage the technical complexity of digital publishing on their own, and this could be an opportunity for publishers to offer new services. While best-selling authors might be able to manage their own distribution, emerging authors may value publishers that can provide online and physical marketing and distribution services. It must be noted that this is another field in which currently Amazon has a dominant position.

Most of the elements described above concur to setting the scene for possibly the biggest challenge for publishers—discoverability. As publishers' main task is to connect authors and readers, their efforts must tend to maximise the chances for their books to be discovered, and in the digital world this challenge has a series of specific features.

Even after ebooks have been sold, challenges and opportunities are not over. Data and analytics about ebook usage and sales are in fact largely considered as one of the most important—if not the most important—areas for business development in the coming years. Traditionally, operators in the industry were able to access a limited number of rich, industry-specific, quality controlled, well-structured data (bibliographic information, subjects and commercial data). The explosion of new ways to buy or borrow and read books beyond paper (on multiple devices and from multiple platforms) has deeply altered



this picture. Readers produce a large amount of data, when they buy or borrow an ebook, when they read it, when they share, review and recommend a reading. All these data can hugely enhance the potential for innovating the way the publishing industry looks to analytics and decision-making elements.

Currently, however, only a few multinational e-retailers are able to process such big data, exploiting their particular position as intermediaries between producers and consumers and only very few among the big publishing groups have recently started experimenting with the use of big data technologies for their own business intelligence. There is a strong feeling that anyone supplying content to a platform ought to, in return, receive data about how it is being used but existing platforms differ widely in the quantity and quality of data they make available to content suppliers. For physical books, publishers usually get weekly reporting from every major customer, daily when they need it; not so with digital books. Finding ways to exploit this new potential along the whole value chain and fully benefit from the opportunities it offers is going to be yet another big challenge.

Underlying it all, publishers need to address the organisational challenges needed to be able to tackle all the others. This means also having the required skills and competences. The steps and activities of digital publishing involved of course a series of skill sets; many of these fit within what publishers (and their staff) have traditionally done—the exact work has changed and the technology is significantly upgraded, but traditional publishing people can do the job. When it comes to certain tasks, such as file preparation, output, and delivery, however, publishers have been investing capital in retraining existing production and design staff or simply hiring those skill sets anew. Those skills are often closer to computer programming and technical workflow management than they are to traditional publishing production skills. For publishers, this means adding staff and time; even publishers outsourcing the work add staff to manage the outsourcing, and either way it adds cost with a return on investment that is often unpredictable.

In conclusion, publishers in the digital era are facing a whole new world of challenges and opportunities and new sets of strategic decisions. They often experience an explosion in the amount of work and an increase in the expense for less revenue, and are investing significantly more in the business at a time when their traditional brick-and-mortar business partners are challenged. This generates some anxiety that publishers are still not doing enough to adapt to change, under-investing in innovation and training in particular.

There are many reasons to be optimistic, too. Many publishers think rising digital sales will expand the overall books market rather than shrink it. And the shift from product-focus to customer-centricity will depend as much on human factors (change leadership, change management, skills and competencies and mindset) as technology and organisational capabilities.



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