



Sector Futures

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In the first feature on the sector, **The future of publishing and media**,¹ we provided a snapshot of the current state of the sector and introduced some of the trends and drivers influencing the industry's future development. This second article in a three-part series explores in more detail the future of publishing and media through reviewing some of the futures research that has been carried out on the sector. Thus, it looks more closely at the trends and drivers that futures research has identified as being influential, and examines some of the scenarios that have been defined for publishing and media.

The publishing and media sector is significant for Europe in terms of the value of the market and also in terms of employment. For the European Union, the sector is particularly important because of its contribution to and relationship with European culture – the publishing and media sector is central to creating and strengthening Europe's identity.

As we explained in our previous article, the fortunes of publishing and media are closely linked to the strength of the underlying economy because of revenues resulting from advertising and end-user spending. Consequently, the sector saw boom times in the 1990s but was adversely affected at the turn of the millennium by the bursting of the dot.com bubble, the restructuring in the telecommunications sector and the general downturn in the global economy.

A major difficulty in exploring the future of publishing and media is being able to come up with a common definition of the sector itself. As was highlighted in the first article, definitions of the sector vary considerably, and include a huge range of activities sometimes having little in common. Complex chains of production and the operation of companies in several sub-sectors further complicate attempts to draw out common themes across the sector as a whole.

These characteristics have influenced the futures research in the sector. While many studies have covered publishing and media as a whole, some have concentrated on specific sub-sectors such as publishing, online media and magazine publishing. However, in general surprisingly few in-depth futures studies have been conducted on the sector, given its size and importance, and the fact that it is subject to great change and uncertainty, due to technological innovation. On the other hand, it is no surprise to find that the future of publishing and media (or some aspects of the sector) crops up in many academic papers and journalistic articles. Nevertheless, this article draws predominantly on those futures studies which have created scenarios.

It is also evident that existing futures research on publishing and media is concerned with a comparatively short time horizon, typically looking about five years ahead. In futures terms it is hard to classify this as long-term thinking. However, these are times of great uncertainty for the media – the optimism of the 1990s came to an end with the dot.com crash and has been replaced by a more realistic and immediate search for sustainable business models.

Trends and drivers of change

The first article in this three-part series introduced some of the trends and drivers of change affecting the sector, classifying them into economic and political drivers, technological drivers, and social and cultural drivers. Different futures studies on the sector place different emphasis on these drivers and some focus on more specific factors. One study on the future of UK publishing, **Publishing in the knowledge economy**², provides a simple and useful classification of drivers, much of which applies to the media sector as a whole. As such, it is a good starting point for this article. This study groups drivers into four areas: lifestyle, work, technology, and economy.

¹ http://www.emcc.eurofound.eu.int/publications/2003/sf_pm_1.pdf

² <http://www.uk-publishing.info/competitive.asp>

Table 1: *Drivers affecting UK publishing*

<p>Lifestyle</p> <ul style="list-style-type: none"> ▪ competition for consumers' time and money ▪ amount of time available for leisure activities ▪ requirements for easier access to information ▪ population demographic shifting towards an ageing population ▪ time spent shopping ▪ effects of the desire for a higher 'quality of life' ▪ effects of less travelling time to work ▪ desire to better educate children 	<p>Work</p> <ul style="list-style-type: none"> ▪ more distant/home working ▪ ability to access information from anywhere at any time ▪ better integration of customer information with business information ▪ faster decision-making based on better information available ▪ more mobility of workforce ▪ more international workforce as employment laws are relaxed and EU expands
<p>Technology</p> <ul style="list-style-type: none"> ▪ adoption by the public of new network services such as broadband, wireless and digital television ▪ adoption by publishers of technology to improve current business processes ▪ proliferation of connectivity to the Internet ▪ level of comfort of people in working with technology ▪ success of promised technology in delivering e-business functionality ▪ ability of customer companies to integrate publishers' content into employees' workflow 	<p>Economy</p> <ul style="list-style-type: none"> ▪ growth of the economy ▪ purchasing power of the consumer ▪ increase in disposable income for spending on publishers' products ▪ impact of the transport infrastructure ▪ impact of the tax regime

Source: *Pira International, 2003, p. 82.*

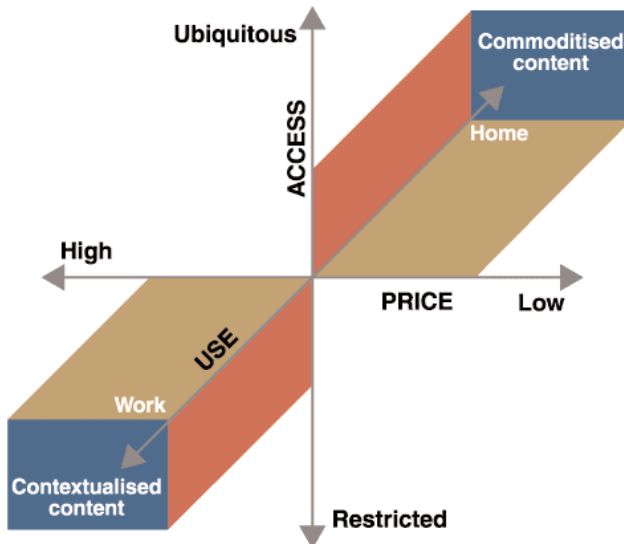
Drivers of change in the knowledge economy

In considering these drivers, the study goes on to characterise the following trends for publishers in the knowledge economy environment (Pira International, 2003, p. 83):

- High take-up of broadband Internet, wireless devices and digital TV and ubiquitous use of personal devices in office, homes, schools and while travelling.
- Content will have a high value to the purchaser if it is in context at time of use.
- The use of personal devices such as PDAs and mobile telephones will increase as will their functionality.
- Businesses will deploy sophisticated customer response management (CRM) techniques and can thus target products accurately to consumers.
- Advertisers will be targeting audiences more precisely and will require more data to prove effectiveness.
- The Internet will increasingly become a research tool.
- Shopping will continue to be a major pastime in large out-of-town centres.
- Consumers will have easy access to products from around the world and electronic payments will be universally accepted.
- Integration of different media will be easier and more sought after, thus distinction between broadcast and printed content diminished.
- Younger generation will be technologically sophisticated and take access to content for granted.

The authors of the Pira report foresee that the change to a knowledge economy will lead publishing to polarise into 'commoditised' and 'contextualised' content. This polarisation is illustrated in figure 1.

Figure 1: *The axes of the knowledge economy*



Source: *Pira International, 2003, p 83.*

The study then explores the implications of these drivers in the form of four scenarios, which we will return to later in this article. But first we consider trends and drivers identified in other studies.

Drivers of change in the media industry

One study in particular is worth looking at more closely. **MUDIA**³ (Multimedia in the Digital Age) is a European Commission sponsored IST project launched in May 2001.⁴ The project brought research and professional organisations together in an exploratory project to examine the driving forces of change in the multimedia news industry. Most interestingly, the project provides insight about how thinking on the media industries changed as a result of the bursting of the Internet bubble. An initial set of trends and drivers, drawing on research conducted in the late 1990s, was subsequently replaced with a revised set of drivers in the light of more recent thinking. The project's report, **The Future of News Media Industries**⁵, shows how assumptions about the future changed significantly at the turn of the millennium.

Initial set of drivers

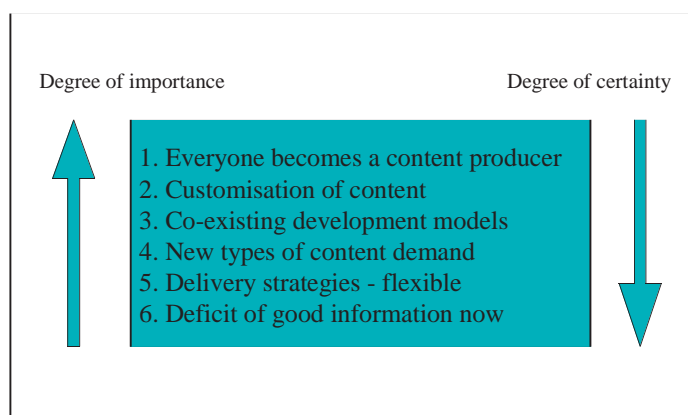
The initial drivers, designed in 1999-2000, are shown in figure 2 and are summarised below. Compared with the drivers in the Pira report, the MUDIA drivers focus more specifically on the production and distribution of content, rather than on generic drivers in the knowledge economy.

³ <http://www.mudia.org/index.html>

⁴ The project consortium comprises The Institute for Infonomics, Maastricht (co-ordinator); World Association of Newspapers (WAN), Paris; News World International Ltd, London; Institute for Prospective Technological Studies (IPTTS), JRC, Seville; and Comtec, Dublin City University.

⁵ [http://www.mudia.org/results/WP1 Del 1.2 Web version.pdf](http://www.mudia.org/results/WP1%20Del%201.2%20Web%20version.pdf)

Figure 2: *Initial set of drivers for MUDIA project*



Source: *Punie et al, 2001, p. 8.*

Everyone becomes a content producer

The media industry is no longer the exclusive producer of content. Many Internet portals providing news information do not belong to traditional media players. With information and communication technologies (ICT), production and distribution costs are lowered such that potentially every individual or group can become a content producer.

Customisation of content

ICT make on-demand design of content and on-demand retrieval possible. This could mean a shift from pre-packaged to modularised and interactive content, defined through customer profiling and delivered by email.

Co-existing development models

New players entering the market from telecommunications and computer industries (horizontal integration) and media firms that get involved in all areas of content production and distribution (vertical integration) will co-exist. Such development towards a fully integrated or 'converged' media market will be determined by venture capital assessment of risk in start-ups.

New types of content demand

The first two drivers mean that content creation for niche markets is technically and economically feasible.

Delivery strategies will be flexible

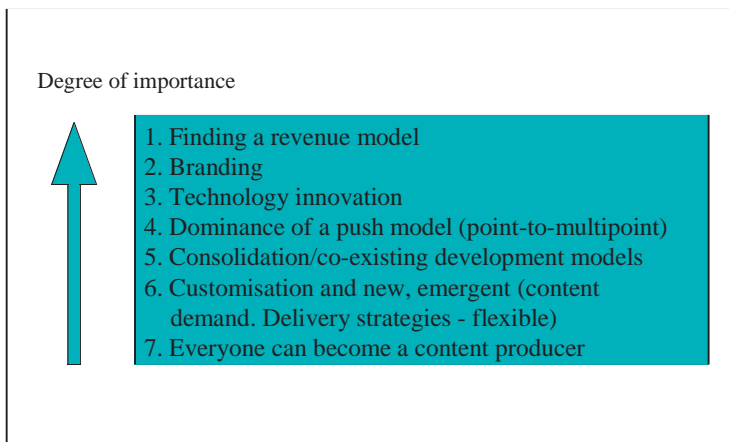
Hand in hand with the second driver, content can be customised for delivery in highly flexible ways using whatever channels, from print to wireless.

Deficit of good information now

Because of the deficit of validated information on sector trends, the impact of policy action - or inaction - is uncertain.

The MUDIA study initially assumed that content provision would shift from suppliers to users, driving change in the value-production chain in the media industry. The impact of peer-to-peer music services such as Napster is an example of this although, interestingly, such peer-to-peer technologies were not explicitly taken into account when these drivers were first developed. Thus, these drivers are not based on trends but, rather, on assumptions. In a sense, they are not drivers at all but forecasts. Nevertheless, the project team reassessed this list of drivers in 2001 with the input from media industry executives, and concluded that they had been too optimistic. Figure 3 represents the new list of drivers of change.

Figure 3: Revised drivers for MUDIA project



Source: Punie et al, 2001, p.11.

Revised set of drivers

One driver - the deficit of good information - was dropped from the original list, since it was agreed that there was always a shortage of good information. The other drivers were combined and reduced to three while four new drivers were added. A new ranking was given to the drivers relating to their importance.

Finding a revenue model

The bursting of the Internet bubble has seen a much more realistic attitude towards financial sustainability. Revenues and profitability are now seen as the main drivers of change. It remains unclear how businesses can make a profit from online content provision.

Branding

It is clear that media companies will rely heavily on being the trusted gatekeeper of information. In this context, branding enables users to recognise trustworthy information sources and, therefore, to deal with the problem of too much choice.

Technology innovation

Under this broad driver of change, a variety of technology and innovations are included. Broadband and mobile technologies are seen as having the highest potential for driving change. Other issues include standardisation, potential for ICT to lower production and distribution costs, billing (especially micro-billing), intellectual property rights, convergence of delivery platforms, pervasive Internet, ambient intelligence, etc.

Dominance of a 'push' model

Content 'push' versus user 'pull' are still regarded as opposing models but they may increasingly go hand in hand in the future. Push from content providers will continue to be dominant in the coming years motivated by the need to find economies of scale. With the focus on profitability, media companies will seek large and wide audiences rather than seek to service small niche markets. Moreover, experience suggests that users favour a 'broadcasting' style of push model because of the value in social sharing of information.

Consolidation and coexisting development models

As in the first set of drivers, horizontal and vertical integration, including convergence, will coexist - but consolidation trends are getting stronger. Uncertainty over profitability, the search for economies of scale, stronger competition and lack of venture capital will encourage companies to join forces to survive. In this case, consolidation rather than diversification will be the more important driver of change.

Customisation of content

Media managers expect customisation to become more important - provided users are willing to pay for it. The revised list of drivers still sees customisation as potentially important but that it will be a complement to the more general provision of content. Generally a more realistic approach is taken to the demand side with a market-oriented attitude.

Everyone can become a content producer

This was originally seen as the most important driver. In the revised list, however, this driver was demoted since it was not considered threatening to existing media companies or offering opportunities because, crucially, it would not generate revenues for them. While the Internet does potentially lower entry barriers and there may be opportunities for individuals and small groups to generate and distribute specialist content, the opportunities for a sustainable business are likely to be limited. The potential of low barriers to content production is thus related to profitability and not, as was previously thought, to the 'democratic potential' of the Internet.

The differences in these lists of drivers are striking and demonstrate the dramatic change in attitudes in the post-Internet boom era. Demand-related drivers are now ranked least important while industry-related drivers are of primary importance. According to Punie *et al* (2001, p.12):

The shift is significant because it goes against ideas that were popular during times of Internet hype - on empowering the users, for instance (at least according to the media managers who participated in the workshop). This shift, to our knowledge, is not reported widely in [the] literature. Finding a revenue model, however, has become crucial for the online media industries, as raised by many different sources in relation to the decline of the online advertising market and the growing experiments with pay for content. The Wall Street Journal Interactive Edition is a typical example of the latter.

This way of thinking, however, does mirror the Pira study outlined earlier, particularly as illustrated in figure 1.

Before leaving the subject of drivers and looking at some scenarios, the PricewaterhouseCoopers study, **Global entertainment and media outlook: 2002-2006**⁶, should be mentioned. This study develops a vision of the entertainment and media industry using an analytical framework based around three primary drivers (PricewaterhouseCoopers, 2002, p.13):

- delivery deployment;
- content innovation; and
- government intervention.

These drivers were selected from a broader set including advertising growth, broadband penetration, GDP growth, and demographic and social trends. A more detailed description of the way in which these drivers were used to construct scenarios follows later in this article.

⁶ http://www.pwcglobal.com/e&m/outlook/Outlook2002_ExecSummary_Final.pdf

Scenarios for publishing and media

Pira's scenarios - matching the pace of change

Pira developed three scenarios for the future of UK publishing based on the list of drivers shown in table 1 (Pira, 2003, p.83).

Scenario 1: 'Slow adaptation to a changing business environment'

In this first scenario, the publishing sector responds slowly to the changing business environment characterised by content re-use and targeted advertising. The scenario also assumes a decline in existing business conditions. The main features of the scenario are:

- Circulations and sales per title continue to fall.
- Advertising spending decreases.
- Taxes rise as priorities shift from personal consumption to public goods, such as transport and health.
- Cautious and conservative attitude to life on the part of the general public.
- Pace of technological change slows and companies put off investments and upgrades.
- Publishers do not make investments in new technology.
- Publishers fail to seize the challenge of the digital media.
- New title output decreases.
- Publishers fail to get close to the end-customer.

As a result:

- Free-to-air and low-cost media gain market share as consumers cut back on discretionary spending.
- (But) low business profitability and low growth hit business-to-business (B2B) and business-to-consumer (B2C) advertising.
- Product innovation slows, e.g. new magazine launches.
- eCommerce stalls as business investment slows and consumers shun online shopping.
- Consumers are unwilling to share personal data but they are less fickle and more brand loyal.
- Local media and libraries become more valued as people spend less time at work.
- Mergers and acquisitions accelerate as media companies attempt to gain scale.

Scenario 2: 'Reacting to rapid pace of change'

The second scenario presupposes dynamic change in the business and competitive environment with the shift to a new knowledge economy occurring at a rapid pace. Publishers have insufficient time to prepare for the new environment and fail to exploit the new opportunities. Features of the scenario include:

- Economy supports personal consumption growing at a faster rate.

- Affluent and young consumers use interactive technologies for (some) physical shopping, digital purchases and billing and banking transactions.
- ‘Destination shopping’ occurs mainly in out-of-town developments incorporating other entertainment facilities and ‘shop windows’ for travel and financial services.
- Pace of technology growth continues.
- The roll out of broadband and wireless technology accelerates.
- Publishers are squeezed by new entrants into market.
- Large funds are put into new start-ups, but lessons are learnt from Internet.

As a result:

- Publishers are panicked into ‘Internet-type’ responses.
- Publishers are forced to develop chargeable services around the creation and use of content.
- Focus is lost on existing business as time and money is spent on catching up.
- Incentives to create content are lacking.
- Large investments are made to adapt content and advertising systems.
- Publishers are unprepared to exploit new opportunities.
- Content may be dumbed-down, but information is easily available to every consumer, wherever they are.
- There is an even greater fight for attention from consumers.
- Retail chain becomes less important .
- Sophisticated CRM and CMS are needed to manage multiple channels.
- Large retailers become major guardians of the customer relationship and customer data.
- Retail brands are the most trusted by consumers and are extended back into publishing value chain.

Scenario 3: ‘Adapting to change at a steady pace’

In this scenario, the advent of the knowledge economy occurs at a pace that plays to the strengths of the publishing industry. Publishers put in place processes, technology and business models to manage the transition from paper-based publishing to digital media dominated publishing. Features of the scenario include:

- Adoption of technology by the general public follows predicted trends.
- Businesses adapt their processes at a steady pace.
- Take up of new network services mirrors take up of Internet.
- Companies implement integrated publishing technology systems including digital rights management (DRM), content management system (CMS) and customer relationship management (CRM).

- Companies migrate their paper-based businesses at a manageable pace to digital businesses.
- Strategic acquisitions, mergers and partnerships are made to offer the best products and services to end-customers and advertisers.

As a result:

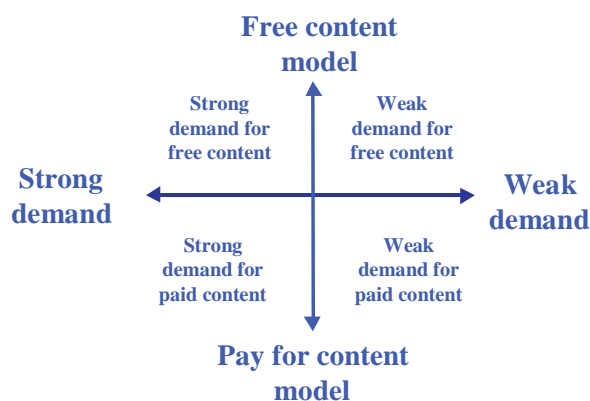
- Publishing companies implement technologies to improve processes and reduce costs while preparing for the future.
- Print revenues form the basis of publishing company revenues for a good number of years.
- Investments are kept at reasonable levels.
- Mergers and acquisitions can be carried across media.

MUDIA scenarios – from free to paid-for content

The MUDIA project, using the revised set of drivers listed above, developed what it called ‘integrated scenarios’ for both private and public online content media. This article will focus on the scenarios for private content only. As described earlier, the most important driver is finding a revenue model for online media. The MUDIA scenarios are thus predicated on the idea that free online content should not be expected to last forever. They argue that there is no reason why people should pay for traditional media content and not for online content. Revenue sources could come from direct sales, subscriptions or from advertising. Yet the recent decline in the online advertising market is driving media companies to look for other revenues. This tension between the current free content model and a future pay-for-content model is used as one axis to describe alternative and plausible futures for the media industries.

A second axis deals with demand and contrasts weak versus strong demand. Combining both axes and assuming that demand goes up when prices go down produces the matrix shown in figure 4.

Figure 4: *MUDIA matrix: market dynamics regarding content*



Source: Punie et al, 2001, p. 13.

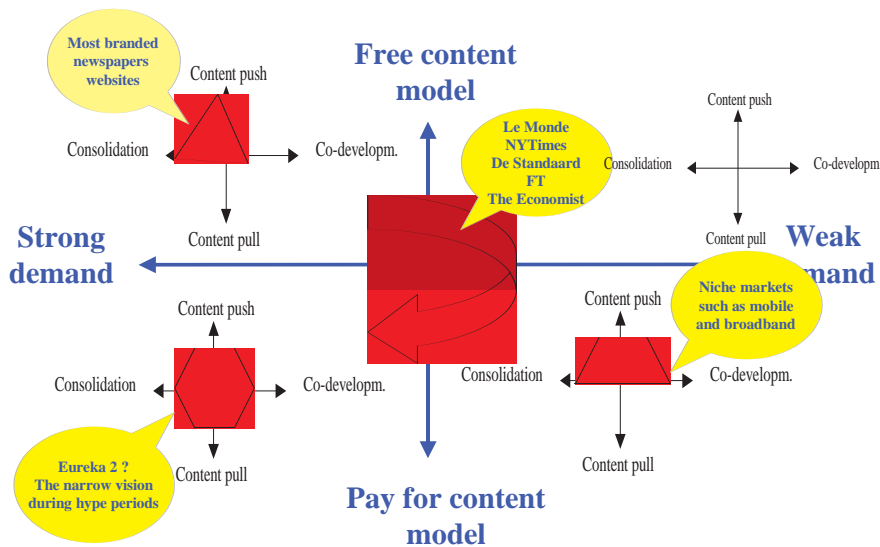
Following this matrix scenarios were built based on four possible trends regarding market dynamics of online media content:

1. strong demand for free content
2. weak demand for free content
3. strong demand for paid content
4. weak demand for paid content

This framework makes it possible to envisage how the market for content might evolve from one segment to another, e.g. from strong demand for free content to weak demand for paid content. Within each of these segments, the MUDIA scenarios also attempt to take account of media structures and ways of providing content. Inside each segment two further axes can be defined. The first concerns industry structures and contrasts consolidation versus co-existing development models. The second axis depicts content push at one extreme and content pull at the other.

In summary, the MUDIA project combines different scenario models to describe how content markets (free versus paid content and strong versus weak demand), industry structures (consolidation versus co-development) and content provision (push versus pull) might evolve (see figure 5).

Figure 5: *Integrated scenario for private online content media*



Source: Punie et al, 2002, slide 9.

At present, the media industry is mainly located in the top left quadrant of figure 5, characterised by a strong demand for free content. Content push dominates and consolidation is getting stronger. In future, the media sector is expected to migrate to the bottom right quadrant where more and more content will need to be paid for, but the number of people willing to pay will be limited. Content is still pushed but there is more room for specialised niche players able to reach specific audiences, thus both consolidation and co-development occur. Some companies are already operating in this quadrant. The ideal ‘Eureka’ scenario is perceived to be the bottom left quadrant where there is a high demand for paid content, enabling both niche players and big companies to make profits. In this case, content is both pushed by providers and tailored to users’ preferences. This is the scenario that the media sector would like to see emerging.

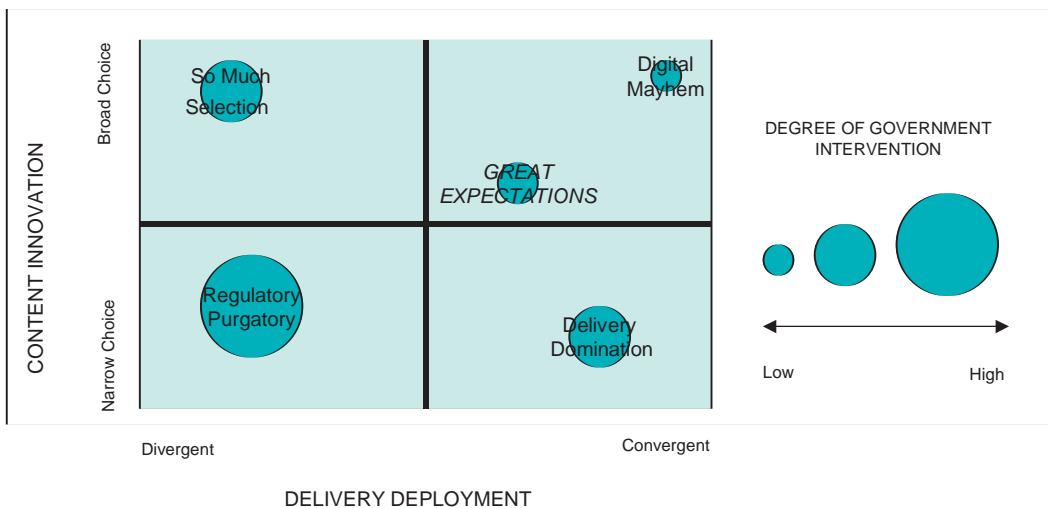
PricewaterhouseCoopers' scenarios - realistic expectations?

The PricewaterhouseCoopers' scenarios cover the whole entertainment and media sector and are therefore more wide ranging. These scenarios were developed on the basis of three main drivers:

- delivery deployment;
- content innovation;
- and government intervention.

A matrix using these drivers was elaborated with the x-axis - delivery deployment - ranging from divergent to convergent delivery, and the y-axis - content innovation - ranging from narrow choice to broad choice. Overlaid on this matrix is a way of signifying the degree of government intervention. In this way, four 'extreme states' or scenarios were developed, as shown in figure 6.

Figure 6: PricewaterhouseCoopers' end-state matrix for entertainment and media



Source: PricewaterhouseCoopers, 2002, p.11.

These four 'extreme states' – *Digital mayhem*, *Delivery domination*, *So much selection*, and *Regulatory purgatory* – provide boundary conditions for the future development of the entertainment and media sector. The main characteristics of these four states are shown in table 2.

Table 2: Summary of extreme-state attributes

<i>Digital mayhem</i>	<i>Delivery domination</i>	<i>So much selection</i>	<i>Regulatory purgatory</i>
<ul style="list-style-type: none"> ▪ Convergent delivery ▪ Broad choice ▪ Low intervention 	<ul style="list-style-type: none"> ▪ Convergent delivery ▪ Narrow choice ▪ Moderate intervention 	<ul style="list-style-type: none"> ▪ Divergent delivery ▪ Broad choice ▪ Moderate intervention 	<ul style="list-style-type: none"> ▪ Divergent delivery ▪ Narrow choice ▪ High intervention
<ul style="list-style-type: none"> ▪ No physical media – everything is digital ▪ Widespread piracy ▪ Free content ▪ Voluminous consumer-created content ▪ Laissez-faire government policies 	<ul style="list-style-type: none"> ▪ Major companies dominate ▪ Encryption eradicates piracy ▪ Existing business models protected ▪ Uniform delivery mechanisms ▪ Government fights piracy 	<ul style="list-style-type: none"> ▪ Broad content choices ▪ Regional content proposals ▪ Educational and informational content proliferate ▪ Region and application specific delivery ▪ Government focus on protectionism 	<ul style="list-style-type: none"> ▪ Government active in antitrust, protectionism, and intellectual property enforcement ▪ Little innovation in content or delivery ▪ New players stifled ▪ Universal service offerings across multiple platforms

Source: PricewaterhouseCoopers, 2002, p.12.

The study then goes on to design a preferable scenario by moderating some of the elements in these extreme states. The resulting scenario, called *Great expectations*, is considered not only to be more desirable but also more realistic.⁷ In summary, *Great expectations* assumes that advances in delivery technologies and innovations in content categories and forms - in conjunction with governmental intervention - will continue to shape the industry. While delivery deployment will be significantly slower than optimists would like, it will remain a key driver of change in industry structure and competitive positioning.

In terms of innovation in content, the scenario foresees escalating levels of micro-segmentation and regionalisation. Regarding government intervention, this is seen to be shifting away from antitrust action and protectionism towards increased vigilance in intellectual property rights. *Great expectations* identifies threats to traditional broadcast models and opportunities for new revenue streams, increased consumption of digital content and shifting industry dynamics as new players enter the market.

The study goes on to consider the way that the scenario might impact on the 13 sub-sectors of the entertainment and media sector, which is summarised in table 3.⁸

⁷ See PricewaterhouseCoopers 2002a, pp. 8-10 for a full description of the *Great Expectations*.

⁸ The study includes 'theme parks' and 'amusement parks' as well as 'sports' but these categories are omitted here.

Table 3: Summary of impacts on entertainment and media sector segments

Filmed entertainment High penetration of DVDs Limited digital camera Legitimate VOD services mean little file-swapping online More local content, globally	Television distribution Digital upgrades Further consolidation extends convergence and product bundles Loosening of ownership regulations	Television networks Funding sources fragment Most content lower cost but more local New co-financing opportunities	Recorded music First for pervasive digital distribution New service models Increased copyright legislation
Radio and out-of-home advertising Loosening of ownership regulations Limited digital penetration Improved out-of-home alternatives	Newspaper publishing Loosening of ownership regulations Some digital cannibalisation Changes in classified and yellow pages	Magazine publishing Some digital cannibalisation Micro-niches New acquisition and distribution models	Consumer book publishing Translated products increase More mega-authors Publishers merge with large media companies
Internet advertising and access spending Access bundles with consumer services Increasing customer brands Broadband critical mass in industrial nations	Business information Continued introduction of new services Increased wireless delivery	Educational and professional books and training Digital learning products for corporate customers Explosion of long-distance learning	

- High impact
- Moderate impact
- Lower impact

Source: Adapted from PricewaterhouseCoopers, 2002, p.13.

Implications

The publishing and media sector embraces such a vast array of activities and sub-sectors that it is almost impossible to provide a single picture. Nevertheless, the scenarios described in this bulletin affirm that the overriding concern in the future is how best to utilise information and communication technologies within new, sustainable and profitable business models. The optimism of the early Internet years has given way now to a more realistic approach, particularly in terms of how to persuade users to pay for online content. However, there is considerable uncertainty and, perhaps because of this, scenarios typically only draw pictures of the publishing and media sector in the near-term future.

What might be the impact of the scenarios on employment, skills and training? In quantitative terms, the recent past shows evidence of ‘creative destruction’: in the past 10 years new jobs emerged associated with online media and television production, but there is evidence that the broader use of ICT also resulted in some job losses. This process is likely to continue in future and under whatever scenario.

In qualitative terms, it is also certain that, when ICT is involved, there will be changes in the kinds of jobs available and the skills required to perform them. The media sector is likely to suffer from general skills’ shortages associated with ICT. Nevertheless, it will have to respond to the need for a ‘special blend’ of creative, technical and managerial skills that seem certain to be in demand.

The third and last article in this series on the future of the publishing and media sector will explore the main policy issues raised by the scenarios.

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