



Capitalising on Convergence 2

From creation to consumption; delivering content in a converged world

Intellect is writing a second report on convergence following on from 2005's 'Capitalising on Convergence', to analyse and discuss how the converged market place has changed over the past three years and make recommendations about the way forward. The report will be written in nine chapters, with each chapter being published on Intellect's website, focusing on the nine topics the Department for Business Enterprise and Regulatory Reform (BERR), and the Department for Culture Media and Sport's (DCMS) Convergence Think Tank will be looking at over the coming year.

This is the second instalment of the report and it takes as its subject how convergence will affect content producers and providers. What are the potential barriers to and opportunities for competition, growth, and innovation in content supply? What are the implications of these barriers and opportunities for future public policy? To find out more about this disruptive and rapidly changing force, read on.



Capitalising on Convergence Chapter 2

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In 1876 an internal memo written by an employee at the financial services and communications company Western Union declared “the telephone has too many shortcomings to be considered as a means of communication. The device is of inherently no value to us”. Thankfully for them this assessment of the value of fast and easily available communication over long distances was ignored, but it highlights the problem that the emergence of new and disruptive technologies present to incumbents in the market. In short, is it any good and what should we do about it?

In the case of convergence both the opportunities and challenges for players operating all across the value chain are accentuated because of the threat to traditional business models and changing demand from consumers. It is having a disruptive impact on the whole value chain and many industries are having to adapt quickly to the changes under the threat of losing market share or going out of business. As such for the creative economy, convergence is a double-edged sword: it has the potential to both create and destroy value. Deloitte predict that, worldwide, convergence will lead to \$1 trillion shift in valuations and revenues in the converging sectors by 2014. It represents both a disruptive threat and a huge opportunity for companies across a wide and fast moving sector of the UK economy.

Intellect and its members in association with the South East Media Network think that the following eight points reflect what’s currently happening, and what is likely to happen in the future in the digital content space.

1. Whilst digital infrastructure is crucial it exists only as an enabler of the delivery of some higher value service. These higher value services are provided through digital content.

An example of this argument can be seen in the strategy adopted by Verizon, an Internet provider in North America. Verizon complemented their fibre to the home policy with a relationship with Home Box Office (HBO), the premium television subsidiary of Time Warner, which encouraged the programmer to produce well known branded

content in high definition (HD) format. The combination of popular high quality programming and a high quality viewing experience provided a compelling value proposition to consumers. The use of HD also created a barrier to entry for their competitors with a weaker infrastructure. This also created a market differentiator between Verizon and their competitors and positioned them higher up the value added chain.

What this seeks to prove is that consumer demand for richer digital content and the investment this requires from content providers can only be realised if the capacity to distribute this content over the digital infrastructure is sufficient to deliver the right quality of service and user experience. These two links in the value chain cannot operate successfully and profitably in isolation.

2. The value chains of different types of content are moving to digital at different speeds based on the order of complexity: first numbers, then words, followed by music, photos, and finally film.

For very practical reasons the slowest to move to being totally digital is the content using the richest media, such as feature films. The filmmaking process is itself already highly digitised. Most films are digitally scanned so that the special effects which are digitally generated can be added to the edited film; the colour and sound are adjusted digitally and placed on a digital intermediate before the final internegative and interpositive prints are created in the film laboratory.

However with film prints used at every screen and costing approx £1,000 per print, there is a serious financial incentive for change. The real barrier to change in digital projection is the capital investment needed for a new digital projector and the committed sunk investment in traditional analogue projectors, costing in the region of £50,000, and which can last for over 50 years.

In this supply chain it is the digital distribution to the consumer that is lagging behind demand for a variety of reasons. The content industry has been slow to utilise new distribution methods

because of a lack of pressure to innovate. This lack of innovation, combined with concerns about copyright issues and the protection of digital files as well as considerable sunk investments in existing technologies, has resulted in a bottle neck in the production and distribution of new digitally rich content that will need to be opened by investment across the value chain.

3. As these supply chains go digital and the price of devices involved in the various stages of the supply chain fall as a result of the benefits of commodity technology, then different aspects of the supply chain will become available to wider communities to produce, edit, distribute and consume content.

Convergence is helping to create a world where there is a discernible shift in consumer/citizen behaviour away from consuming and viewing, towards using. In this model the user is engaged, actively contributing to and interacting with content and services, rather than passively consuming them. This is leading to a fundamental shift in the way that people interact, consume, perceive value in and pay for services, including public services. It is also leading to the fragmentation of audiences and, in some cases the divergence of products and services to meet niche market requirements. In this convergence offers freedom of choice.

From the range of content experiences now readily available to digitally savvy consumers on 'YouTube' - which incorporates a range of production values from shaky clips uploaded from mobile phones, to short bursts of video footage from still cameras, through students making short movies in their bedrooms, all the way to productions from luminaries like David Lynch - it is clear that consumers welcome and are driving a new and exciting period of self expression. The ease of access, at some level of quality, to all steps in the production and

distribution process has given a large measure of control to the consumer. This has happened with simpler forms of content before, for instance in previously controlled markets like word processing and domestic printing. In the case of content production the removal of barriers to entry is disrupting different business models and what the final outcome of this disruption will be is not yet clear.

4. This creates a wide variety of quality of digital content, from the user generated to the fully professional, that is useful and appeals to a range of different audiences.

Photography is a good example of this variety of digital content with a spectrum of quality that ranges from simple image capturing using a relatively low quality camera in a mobile phone, through pocketsize digital cameras, to digital SLR and beyond. All forms of image capturing are available using these devices, with the higher end devices usually being exploited by a professional.

Despite many gloomy assessments as to their prospects the professional photographer continues to provide important and valued services to the community. The market has expanded by several orders of magnitude with all of the new 'space' being taken up by various levels of amateur. In this the photographic market is broadly representative of the digital market as a whole with. A premium is placed upon specialisation and skills which in turn help provide different qualities and experiences to the consumer, increasing the choices on offer.

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5. This expansion of the market enables participants in different supply chains to use their skills and knowledge to participate in other content silos and bring new perspectives/business models to those silos.

The combining of skills that are traditionally seen as technical (games engine development, web based interactive skills, transcoding), with creative skills (production of art, theatre, radio, film and television), will provide ever more fertile ground for unimagined innovation. This crossing over between disciplines previously thought of as independent and distinct, will help create new relationships and interdependencies in content production and distribution. Many of the outcomes and products from this new creativity are likely to be adopted by the mainstream media and affect daily lives in the future, in the same way that Facebook has altered student and ultimately social networking.

6. This crossover facilitates the creation of genuinely new types and forms of content, as opposed to old forms of content available on new devices.

The introduction and development of television as a medium illustrates how content changes as and when the means of production and distribution change. Initially all forms of content were simply a duplication of an already existing form made available on a new platform. For example the news, sporting fixtures, and theatrical performances were all produced for and existed on radio. At the arrival of analogue audio-visual broadcasting, they were merely transposed without amendment to the television.

It was only with the creation of genuinely new formats that have experimented with the potential of interactive and participatory technology services, (arguably first seen in the

advent of reality shows), that TV has created genuinely new content: this was some 70 years into its product life cycle and the catalyst for this creative act was the potential that new technologies afforded.

This suggests that we have a very long way to go before Web 2.0 products and services will help create genuinely innovative new content rather than the duplication of existing content on new platforms.

7. The success of the economy created by this convergence will be driven by a new breed of people capable of working in some aspect of this multi format supply chain. To compete in this market the UK must provide opportunities for a generation to develop both the necessary creative and technical skills.

Whilst analysing the skills necessary to support the computer games industry, the computer software industry and broadcast television, it has generally been acknowledged that the urgent needs today are for excellence in the core skills of mathematics, physics and computer science. These skills will still be the bedrock of the converged digital content industry. However from this pool of talent we will also need to draw those who are practitioners in the arts. It will be these multi-faceted people, capable of using specialised and value added skills, which are the future innovators. The boundaries of scientific and technological innovation have always been pushed by imagination; we now need to recognise the importance of this ability in all fields of commerce, entertainment and government.

8. Ultimately, these innovative forms of digital content will enable the growth and development of all the sectors of the UK economy by enabling the creation of new types of services in finance, commerce, health care, policing, government, education and leisure.

We already see that the design layout and movement of numbers on a computer screen combined with highly pictorial news flow can produce more competitive ways of trading in the capital markets. We know that improved web sites can encourage the use of on-line government services, freeing up resources to improve services or focus on issues of crime and security. We can see how real-time data, speech and visual feeds can expand the support that highly trained specialists can provide to more junior staff in many fields ranging from medicine to manufacturing.

Government seems to be grasping the importance of providing flexible and converged public services to its citizens in a reflection of the 24/7 online culture the digitally savvy already inhabit. The DVLA website has been an example of one such successful initiative with over one million car tax renewals being completed online in 2007. Recently Schools Minister Jim Knight talked about better linking schools and parents by providing an online service where parents would be able to access detailed weekly reports on their children's academic and behavioural progress online. Parents of truants can already be informed if a child is missing from school by text message. This is convergence in action, as information flows across networks to devices on demand. If properly used and harnessed, public service delivery could be revolutionised. However, like industry, to fully realise the benefits of convergence, government will need to move from 'silo' market sector structures to more converged, horizontal organisations to start to tackle problems holistically.

It is this ability to develop and market creative digital content that will be a significant competitive driver for the UK economy over the coming 20 years.

▶ The next instalment of capitalising on convergence will focus on prospects for the market to deliver investment in the development of high quality networks and on the importance of interaction between them.

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Intellect is the trade association for the UK technology industry.

Intellect provides a collective voice for its members and drives connections with government and business to create a commercial environment in which they can thrive. Intellect represents over 800 companies ranging from SMEs to multinationals. As the central hub for this networked community, Intellect is able to draw upon a wealth of experience and expertise to ensure that its members are best placed to tackle challenges now and in the future.

Our members products and services enable hundreds of millions of phone calls and emails every day, allow the 60 million people in the UK to watch television and listen to the radio, power London's world leading financial services industry, save thousands of lives through accurate blood matching and screening technology, have made possible the Oyster system, which Londoners use to make 28 million journeys every week, and are pushing Formula One drivers closer to their World Championship goal.

In the past 12 months 14,500 people have visited Intellect's offices to participate in over 550 meetings and 3,900 delegates have attended the external conferences and events we organise.

The technology industry contributes over 10% of the UK GDP and directly employs over a million people in the UK.

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