



Capitalising on Convergence 2: What does it mean for citizens, industry and government?

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 Culture Media and Sport (DCMS), and Department of Business Enterprise and Regulatory Reform (BERR), Convergence Think Tank will be looking at over the coming year.

This is the first installment of the report and it takes as its subject the big questions that define convergence. What is it? Why does it matter, and how will it affect consumers, citizens and the economy? To find out more about this disruptive and rapidly changing force, read on.



What do we mean by convergence?

In Lewis Carroll's story 'Through the Looking Glass', there is a character called the Griffin, a legendary creature with the body of a lion and the head and wings of an eagle. He could be described as a converged creature. As Alice wanders through Wonderland she asks the Griffin, who is acting as her guide, a series of questions. The Griffin becomes exasperated by her need for fact and eventually asks her to stop. "The adventure first" he says "explanations take such a dreadful time".

When we discuss what convergence means let us think about what the adventure is first, and then what the explanation is, and what the implications are.

The ultimate adventure that convergence offers is to the consumer and to the citizen, an adventure that has the potential to offer new ways of thinking about the organisation of public and private time. The driving force of convergence is the ideal of information, communication and entertainment anywhere, on any network, on any device. Digital convergence presents a world where information and content is digitised, personalised and accessible 'on-demand' via multiple fixed and mobile platforms and devices. Information follows you around and is available when and where you want it on a variety of devices, rather than being accessible only at certain times and specific places.

Convergence is also 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 change 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.

If that is the adventure, what is the explanation and what are the implications for the world today? Convergence has been primarily triggered by the transition from analogue to digital communication technologies. This has freed up the flow of information across a variety of networks to a variety of devices. This substantial change in dispersing and

decentralising information has led to a change in consumer demand and behaviours that is in turn driving rapid and disruptive change across the global telecoms, IT, broadcasting media and content sectors.

As the old vertical silos of the analogue world start to erode, they are being replaced by a new convergence value chain, which spans a variety of sectors and specialisations. The range of players now involved in the convergence value chain extends from small content creators to large network operators, from creative advertising agencies to small website developers, from gaming software developers to public service broadcasters, and from TV set manufacturers to mobile phone providers all of whom are looking to develop new and closer relationships with the consumer. The commercial relationships between these companies are changing as new interdependencies and opportunities to compete emerge in the value chain.

So convergence offers new ways to do old things: to share information, communication and entertainment across networks and devices. It facilitates freedom of choice.

Why is convergence important for consumers, citizens, and the economy as a whole?

We the consumers

Consumers like convergence. Ultimately, convergence is being driven by consumer demand for converged digital technologies and services. UK consumers have a well-earned reputation as early adopters of technology and have shown a readiness to rapidly purchase devices and services once a compelling value proposition is developed. The UK Consumer Electronics market is the biggest in Europe and made up some 26% of total European sales in 2007. The next biggest market was in Germany, which had 18% of European sales.¹

This trend towards the early adoption of converged services in the UK can be seen in a number of areas. We will list some here.

- The total number of broadband connections in the home is approaching 15m and new connections are running at 70,000 per week.²

So convergence offers new ways to do old things: to share information, communication and entertainment across networks and devices. It facilitates freedom of choice.

1. GfK, Consumer Electronics Sales Values, 2007
 2. Ofcom, Telecommunications market data tables, Q4 2007

- The UK is committed to digital switchover and recently Copeland was the first region in the UK to have its analogue signal switched off. 94% of those surveyed in the local area said they thought digital TV offered a better service than analogue.³
- Only ten years after its launch of DAB as a broadcast standard there are now over six and a half million Digital Radio sets in UK households. Over 500,000 of these were sold in December of 2007 alone.⁴
- Social networking websites, many of which now offer converged services continue to grow at astonishing speeds: Facebook quotes 250,000 new users a day globally and seven million users in the UK alone.⁵
- Perhaps the greatest progress is in the delivery of online music services offered across the UK including Apple iTunes, Napster 'To Go', WiPPET and many others. The UK download chart is well established and downloads regularly outsell physical music singles.
- Public Service Broadcasters are also attempting to exploit the potential and transformational effect of convergence. Channel 4 has 4oD, which promises the best of Channel 4 content on demand. The BBC has launched its successful iplayer service where users can download the last 30 days content on to their computers and has already enjoyed rapid uptake with over one million unique users since its launch on Christmas Day.⁶
- **We all await the launch of 'Kangaroo' a collaboration between the BBC, ITV, and Channel 4 where consumers can enjoy a 'one-stop shop' of over 10,000 hours of TV content which would allow legal broadband downloading and viewing.**

What this list demonstrates is that it is a good time to be a technically savvy consumer. However, for consumers, a positive experience of convergence is dependent on infrastructure

matters. Whilst demand for rich content in the UK is high there are a number of barriers that the consumer currently experiences in accessing and using that content. At the moment there are a number of key factors holding back the adoption of new products and services. These include:

- doubts over whether the network has the capability to meet consumer's expectations on quality
- concerns about the technical complexity of service and devices and low levels of usability
- concerns about a lack of consumer support when things go wrong
- worries about safety and security of activities online
- uncertainty about the relevance or value of services and a lack of basic skills and confidence in using technology.

Market driven innovation will narrow this gap by making these services more compelling and simpler to use. However, government and industry can also play a role through targeted collaborative action to raise levels of awareness, access and digital literacy amongst the most excluded groups. This will help drive an even quicker adoption of services and products.

The real impact of this freedom of choice is that consumers are no longer operating as a homogenous mass: they are not doing the same things at the same time. This fragmentation of audience and consumer behaviour is driving a divergence of products and services to meet niche market requirements.

We the citizens

For the citizen, convergence is a force for good. Not only does it offer freedom of choice, it also offers freedom of expression and communication. Freedom is fostered when the means of communication are dispersed, decentralised and easily available. The quick and easy flow of information, communication and entertainment that is the salient feature of convergence acts as an essential counterpoint to concentrated and monopolised old networks.

Convergent products and services also have the potential to be a transformational tool in the

3. GFK, Post switchover tracker survey
4. GFK, DAB sales for the DRDB
5. Alex web information
6. BBC online

Convergence is already affecting the citizen and will continue to do so. The real question is how best to maximise the potential benefits for as many citizens as possible.

way people live and work and offer tangible improvements in citizen's quality of life. Used properly some of the leisure pursuits that convergence facilitates in people's personal life – time shifting, social networking, user generated content, information sharing – could be used beneficially in our professional lives.

Convergence also offers government a better and more efficient way to reach, interact with, and serve its citizens in the areas of public service delivery, information sharing and citizen engagement. Its potential is huge.

For citizens to realise some of the benefits of convergence, a number of significant barriers to adoption needs to be addressed. Perhaps the biggest of these is the digital divide, the term commonly used to refer to the gap between those people with access to digital and information technology, and those without. We would like to see this debate broadened to beyond merely an analysis of access to technology, but also the imbalances in resources and skills needed to effectively participate as a digital citizen. The demographic categories where the digital divide can be seen to have a negative effect span age (young/old), the socioeconomic (rich/poor), the educational (tech savvy/tech illiterate), and the geographical (urban/rural). The potential for further social and economic division, based around the access to and participation with converged services and products has serious implications for UK plc's ability to continue to function as a leader in the knowledge economy. How this divide is managed and addressed should be a key priority for the convergence think tank.

Convergence is already affecting the citizen and will continue to do so. The real question is how best to maximise the potential benefits for as many citizens as possible.

The economy as a whole

For the economy, convergence is a double-edged sword: it has the potential to both create and destroy value. Convergence 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. Deloitte predict that, worldwide, convergence will lead to \$1 trillion shift in valuations and revenues in the converging sectors by 2014.⁷ As such, it represents both a disruptive threat and a huge opportunity for companies across a wide and

fast moving sector of the UK economy.

The UK cannot afford to be complacent because there is a lot to lose. Its hi-tech sector generates approximately 9% of GDP. In addition the UK creative industries account for about 8.4% of GDP. Although there may be some overlap in these figures, it is clear that these converging sectors are a highly important part of the UK economy and part of the growth engine of the knowledge economy. Both sectors are highly productive and internationally competitive. According to the European Commission the hi-tech sector accounts for 40% of Europe's productivity growth and the UK hi-tech sector has a higher level of labour productivity than even the US hi-tech sector.

As the global knowledge economy takes shape, the UK can't afford to lose its leadership position. Without a strong domestic market, it will be difficult for UK companies to compete effectively with the growing ranks of strong international competitors. Therefore it is essential that the UK keep pace with its major rivals in the development of convergence.

How does the UK compare internationally?

Overall, the UK compares well internationally and is making good progress. It has strengths in all of the key industries at the heart of convergence. It also has a strong user base of early adopters and has made real progress in developing a regulatory and policy environment that supports investment and innovation by the private sector.

The challenge for industry, government and the regulators is to build on this progress to ensure the UK achieves a world leading position.

Unsurprisingly the other countries currently driving and experiencing convergence are developed nations with a strong IT background.

7. Deloitte presentation to Intellect's CE conference – June 2005

As well as the US, Japan, South Korea, Taiwan, Singapore and Hong Kong, are all focusing on the potential benefits of convergence either through concentrating on broadband infrastructure or rapid mobile internet connections. These initiatives are largely based around collaboration between higher education centres and industry, particularly where there are dominant consumer electronic companies in the country.

In Europe, France is heavily investing in fibre to the home whereas Finland is world renowned as a centre of invention and innovation ranking above the US in criteria such as patents per capita and network deployment and readiness. It is also the home of the number one phone manufacturer in the world, in Nokia.

Developing nations see leveraging convergence technologies such as telecoms and IT as one of the quickest and best way to drive economic growth. Indeed The Economist's annual e-readiness survey – the measure of a countries "interconnected set of infrastructural and commercial attributes that help the economy to grow" – noted that the "divide continues to narrow" between developing and developed nations. In this survey the UK came seventh. Denmark was first.⁸

Looking internationally, the attributes that appear most commonly in converging cultures are infrastructure innovation, followed by device convergence, content innovation and investment and consumer awareness and demand. The UK has room for improvement in the most significant of these attributes: infrastructure innovation.

What are the key challenges and opportunities convergence presents for the future?

Convergence is a protean thing, and as it changes shape so do the challenges and opportunities it presents. Primarily, the challenge it presents is to industry and government and how best to anticipate and react to the disruptive change that convergence is having on the global telecoms, IT, broadcasting media and content sectors.

Industry

For industry the challenges of anticipating and servicing consumer demand in what is an extremely competitive and volatile market means that established business models are being

rendered obsolete. As the long tail of consumer demand becomes a reality, market opportunities are increasing. These opportunities are forging relationships across the value chain between the telecoms, computing, entertainment, consumer electronics and education sectors who are working together in a more collaborative and coordinated way. These industries are currently going through a learning and trusting phase, trying to establish mutually beneficial partnerships. However, many sectors remain in a protective and defensive mind set under the threat of cannibalisation.

The opportunity for those involved in the convergence value chain is nothing less than a chance to grow and adapt businesses into new potential areas of growth. If UK industry is to seize the opportunities that convergence presents, companies will need to partner, form alliances and focus on their key competencies to ensure success. Industry will need to move from 'silo' market sector structures to more converged, horizontal organisations.

Government

For government the challenges are two fold: firstly how best to harness the enormous potential of convergence as a transformational force on public services, and secondly how best to lightly and flexibly regulate such a quickly changing market.

Government does seem 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 Driver and Vehicle Licensing Agency (DVLA), website has been an example of one such successful initiative with over one million car tax renewals being completed online in

In terms of regulation, government faces an institutional problem. Policies and regulation are still seen by many players to either inhibit investment or impose unnecessary costs on business.

2007.⁹ 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 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.

In terms of regulation, government faces an institutional problem. Policies and regulation are still seen by many players to either inhibit investment or impose unnecessary costs on business. These concerns are emphasised by the fact that the convergence market is an unsettling and uncertain place to be.

The 'Audiovisual Media Services Directive', a modernisation of the Television without frontiers directive, recognises a flexible approach to regulation is needed and includes Video-on-Demand services and those delivered online in the common standards for TV services across Europe. The challenge now is to continue to regulate new content platforms and providers as lightly as possible in an effort to encourage competition and innovation.

Whilst it would involve difficult decisions for the government, industry sees continuing strong and clear policy leadership, supported by effective, appropriate regulation, as a key driver towards a better, more converged future.

What are the key policy implications which the Convergence Think Tank needs to address?

As seems appropriate for a discussion on convergence the policy implications we believe should be addressed by this think tank fall into three major categories which all intersect, overlap and synergise. The three major categories are the social, the economic and the regulatory.

Social and cultural

The UK faces significant problems with its digital divide, the term commonly used to refer to the gap between those people with effective access to digital and information technology, and those without access to it. We would like to see this debate broadened to beyond merely an analysis

of access to technology, but also the imbalances in resources and skills needed to effectively participate as a digital citizen.

Unless significant educational and infrastructure moves are made in partnership by government and industry, the UK risks creating a dual track digital society. A youth/adult divide is only one of a number of potential splits that a lack of participation in convergence could produce. There is also the potential for divisions based on different social fault lines: between the rich and poor, the tech savvy and the tech illiterate and the rural and urban. These divisions need to be skillfully managed to ensure the potential benefits of convergence citizens are realised for all citizens and used to help address social disadvantage.

The potential for further social and educational division, based around the access to and participation with converged services and products has serious implications for UK plc's ability to continue to function as a leader in the knowledge economy. How this divide is managed and addressed should be a key priority for the convergence think tank.

Economic

The UK economy is entering a period of instability and profound change. To emerge as a competitive knowledge economy it is essential the government gets to grip with key public policy issues such as next generation access, skills, media literacy and digital inclusion.

The UK cannot afford to be complacent because there is a lot to lose. Its hi-tech sector generates approximately 9% of GDP. In addition the UK creative industries account for about 8.4% of GDP. Clearly these converging sectors are a highly important part of the UK economy and part of the growth engine of the knowledge economy. This knowledge economy

relies heavily upon broadband infrastructure, now an integral part of many people's lives in the UK.

However in global terms the UK's average of 2mbps¹⁰ downstream languishes in comparison with higher speed broadband infrastructure being deployed elsewhere, particularly in the Far East. In these countries next generation broadband services are capable of delivering much higher upstream and downstream peak rate access speeds to end users than are currently available on the UK. In some cases, governments and regulators have chosen to incentivise these investments because they believe they will be critical to their national competitiveness. Unless the UK tackles the issue of next generation broadband access with a coherent and comprehensive policy it could lose its position at the forefront of the global knowledge economy.

Regulatory

A converged policy and regulatory structure coupled with strong leadership for the converging sectors within government is vital for the UK. Inevitably it takes time to reorganise government and regulation to take account of a more converged market. Despite considerable progress, some fundamental structural divisions still exist and fuel a silo approach to policy management that does not reflect the converging market. This is compounded by the potential for regulation to creep into previously unregulated platforms, which could stifle investment in an already uncertain market.

In one respect, the UK government has taken positive steps towards a converged approach to policy and regulation via the Communications Act and the creation of Ofcom, as well as the announcement of amongst other initiatives the

'Digital Britain' strategy and Sir David Varney's service review report. In these instances the UK government is clearly seeing thematic, horizontal issues that need to be tackled in a holistic fashion. The establishment of this think tank is another of these moves, comprised of representatives from across the convergence value chain, and Intellect welcomes its formation and approach.

However a vertical approach to policy development can still be seen in the current division of policy responsibility between the BERR and DCMS. This is also demonstrated by the strategy for digital switchover being developed independently of the strategy for broadband and the telecommunications sector.

The primary concern of industry is that, at government level, there is a lack of understanding of the importance of convergence within the UK economy and society – and political vision and leadership is still seen as insufficient. In addition, further regulatory intervention or 'creep' is still considered as more likely than regulatory withdrawal, and horizontal, non-sector specific regulation adds further barriers.

The next chapter of 'Capitalising on Convergence 2: What does it mean for citizens, industry and government?' will examine how far we can rely on convergence to create open markets and break down barriers, and to what extent intervention might be needed to address competition challenges and enable a thriving creative economy. It will be available for download on Intellect's website on Friday 29 February.

www.intellectuk.org

10. XTN data, 2007



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.

For further information visit www.intellectuk.org



Intellect Russell Square House 10-12 Russell Square London WC1B 5EE
T 020 7331 2000 F 020 7331 2040 E info@intellectuk.org W www.intellectuk.org