

Future Broadcasting Regulation

**An independent report by Robin Foster commissioned by the
Department for Culture, Media and Sport.**

January 2007

This report

This report was commissioned by the DCMS as a think piece to help stimulate and inform the important debate about future changes in the policy and regulatory framework for UK broadcasting and other electronic media. It develops four contrasting scenarios for the future of broadcasting in the UK, and examines some of the broad policy and regulatory implications which flow from those different scenarios. It focuses on the 5-10 year time horizon rather than the near term, and on broad trends and challenges, rather than the detailed design of broadcasting regulations. The intention is to stimulate wide discussion and debate of the key issues, as part of the preparation for a potentially very different broadcasting environment in the UK after the completion of digital switchover.

Any views or opinions expressed are solely those of the author and do not necessarily represent those of Government.

The author

Robin Foster is an independent adviser on economic, policy and strategic issues in the communications sector. He is currently Associate Director of the Global Communications Consortium, a policy research programme, at the London Business School, and chief adviser to the Board of media consultants Human Capital. Until August 2005, Robin was Partner, Strategy and Market Developments and member of the Executive and Policy committees at Ofcom. Previous positions include director of strategy at both the Independent Television Commission and the BBC, and head of the telecommunications and broadcasting consulting division at economic consultants NERA.

Contents

Main report

1. Introduction
2. Executive Summary
3. Feedback from interviews
4. The four scenarios
5. Policy and regulatory challenges
6. Concluding observations

Annex A: Market trends

Interviewees:

The following kindly gave up their time to be interviewed for this report: Charles Allen, Clive Ansell, Ralph Bernard, Andrew Burke, Stephen Carter, Charles Constable, Mike Darcey, Andy Duncan, Jon Gisby, Alex Graham, Ashley Highfield, Phil Kirby, Dan Marks, Ed Richards, Mark Thompson, Karen Thomson. Excepting the summary of interviewee feedback in chapter 3, however, the views expressed in this document are those of the author alone.

1. Introduction

1.1. Aims

- 1.1.1. There is widespread agreement that we are experiencing a period of fundamental transformation in the broadcasting sector. More than 70 per cent of UK households have digital TV, and over 40 per cent of households have broadband.¹ Both figures continue to grow. Everywhere in the market there is experimentation and change. BSkyB has introduced its Sky by Broadband service. BT Vision, a hybrid broadcast and on-demand service has just been launched, and the BBC is planning an on-demand 7 day catch-up service for its TV and radio programming. Mobile TV trials have indicated the potential for new mobile media services. Podcasting of audio content is growing rapidly.
- 1.1.2. Against that background, this report was commissioned by the DCMS as a "think piece" to help stimulate and inform the important debate about future changes in the policy and regulatory framework for UK broadcasting and other electronic media. It focuses on the 5-10 year time horizon rather than the near term, and on broad trends and challenges, rather than the detailed design of broadcasting regulations.
- 1.1.3. Major legislative changes affecting the sector have already been introduced through the Communications Act of 2003, and are augmented by the conclusion of the BBC Charter Review. The Government has also put in place a clear programme for analogue switchover, to be completed by 2012.
- 1.1.4. Nevertheless, the communications sector continues to evolve at a rapid rate, with broadband take-up exceeding even recent expectations, and other new technologies promising to transform the marketplace further. The on-going EU review of the Television Without Frontiers (TVWF) directive will also influence the way we regulate electronic media in the medium term. Given the importance of the media sector to the UK economy as a whole, and its wider social and cultural impact, it is vital to start thinking about the future of the sector well in advance of any new legislative changes that might be required.

1.2. Approach

- 1.2.1. Making reliable 10 year forecasts of developments in broadcasting and electronic media is an almost impossible task. It would not be sensible to design proposals for policy and regulation based on a single forecast, in such an uncertain world. It was therefore decided to use a scenario analysis approach to examine some of the possible developments in the sector, and to explore the challenges for future regulation. Scenarios can help to identify common themes across a range of outcomes, which might inform approaches to regulation. Alternatively, they can help identify turning points in market development, which might influence key choices about regulation at some stage in the future.

¹ Ofcom Communications Market Report, August 2006, and Ofcom Digital Progress Report. Q2, 2006.

1.2.2. Conventionally, scenario analysis involves considerable preparation, discussion and debate - involving many contributors over an extended period of time either within a single organisation or across organisations. For example, the Bournemouth Media School broadcasting scenario project, which I led, published its final report - Future Reflections - in 2002, after an 18 month research period.² For this current report, however, we decided that it would be more productive to produce a "first cut" view of possible scenarios and their implications relatively quickly, drawing on existing research and analysis, and to use the findings to inform an on-going debate.

1.3. Rest of this report

- 1.3.1. The rest of this report contains the following sections. After the executive summary, I outline the main themes raised in a series of interviews I conducted with senior industry executives in preparation for this report. In the following chapter, the four scenarios constructed for the study are described. For each scenario, I explain the assumptions made and summarise the different outcomes. The final chapters examine the implications of the analysis for different aspects of regulation, and make some observations about the regulatory and policy challenges that will need to be addressed over the next 10 years.
- 1.3.2. The annex to this report contains a more detailed review of market trends carried out as a key building block for the scenario analysis.
- 1.3.3. I would like to thank everyone who gave up their time to talk to me about the key trends and challenges. The views expressed in this report are of course my responsibility alone.

² Future Reflections, R Foster and C Daymon, Bournemouth Media School, 2002.

As we observed in Future Reflections: "Scenario analysis works well in volatile contexts, where the future terrain is unfamiliar and unpredictable. Policy makers and corporate strategists in a variety of industries and international think tanks use it to develop and test the robustness of new strategies against different futures. This prepares them to influence the future, rather than to respond to events as they arise"

2. Executive summary

2.1. Market overview

2.1.1. The next 10 years will see an acceleration in technology change and consumer take-up of new technologies, as the capabilities of networks and electronic consumer devices increase, and prices fall. Almost all the senior executives and experts interviewed during this project argued that the broadcasting world will have fundamentally changed by 2016. Consumer expectations and behaviour will alter significantly, and business models will need to be re-engineered.

2.1.2. The main developments are likely to include:

- Digital switchover will have been completed, increasing the range of services available to all UK households, and enabling enhanced interactivity and high definition;
- Broadband delivery will be widely available – BT will have introduced its next generation IP network, offering high speed downloads and streaming of broadcast-quality images, and also the scope for uploading of user-generated content;
- A dramatic improvement in compression, peer-to-peer capabilities, and low cost high capacity storage will transform the capacity of distribution networks, and the ability of consumers to store data;
- Next generation mobile services – using 3 or 4G networks, or mobile broadcasting systems – will enable the delivery of high quality audiovisual content to portable devices and mobile phones;
- Intelligent user interfaces – including navigation and search tools – will help users find their way around the huge volume of content they could have access to over the broadband networks;
- Convergence becomes a reality, with different types of content and communications services delivered via the same pipes, and consumed across a range of devices.

2.1.3. Against this background, consumer expectations and behaviour will continue to change, bringing:

- More consumer choice, and a demand for individual control over content consumed and used, with increased use of on-demand, rather than scheduled broadcast services;
- Further fragmentation of media consumption, tastes, preferences;
- Growing importance of the internet as an aid to social networking and as a means of participation in content creation, in its broadest sense;

- Demand for new types of content, which fully capture the capacity of the web for interactivity, non-linear consumption and participation.

2.1.4. The structure of the UK broadcasting market will look very different in 10 years' time, and even the very notion of broadcasting may well seem outdated. Trends will include:

- The broadening of consumers' access to content from a wide range of potential suppliers, from all around the world – and in turn the opening of new markets for UK content suppliers;
- New forms of content aggregation and packaging, which displace some use of scheduled broadcast channels;
- Changing funding models, and some real doubts about the sustainability in the long term of conventional TV advertising as a major source of funding for high quality content.

2.1.5. The key uncertainties are:

- The speed and extent of the above developments – will the new technologies become ubiquitous or will we see a significant digital/broadband divide?
- The nature of consumption in the new world – a fundamental change to the use of on-demand, or the continued resilience of scheduled broadcast channels?
- The business models that flow from such changes and, in particular, the degree to which fragmentation will undermine the size and stability of funding available for content produced in the UK;
- The extent to which we will see an open and competitive market or a more concentrated market – whether populated by old or new players;
- The attitudes of consumers to content standards and regulation – will individuals take on more responsibility for their choices and for their children's choices, or demand continuing external regulation?

2.1.6. Policy and regulation will need to change fundamentally to reflect the challenges of the new world, and to ensure we are not regulating for old problems or outdated concerns.

2.2. Scenario analysis

2.2.1. To help understand the impact of the main trends and significant potential changes in the sector, four scenarios for 2016 have been constructed for this report:

- **Scenario 1: Transformation:** In this world, a very fast pace of new technology adoption, supported by new fibre-based broadband access

networks, drives a major and radical change in the broadcasting and electronic media sector. There is a dramatic decline in the use of scheduled broadcast TV. Instead, many consumers make extensive use of content delivered on-demand over the open internet, from home and abroad. There is a significant increase in user-generated content. Distribution platforms are no longer part of vertically integrated media organisations – rather they act as common carriers, linking millions of individual consumers to many thousands of content suppliers. At the consumer interface, the emphasis is on use of search tools, rather than on content aggregation.

- **Scenario 2: Consolidation.** This scenario suggests a market in which technology change advances apace, but in which extensive consolidation has taken place, resulting in only a small number of (largely vertically integrated) main players. Consumers prefer to remain with trusted content packagers and aggregators, who can help them through the complex world. In turn, those aggregators are able to secure a powerful position in the market through control of content rights and of essential gateway facilities.
- **Scenario 3: Extreme fragmentation.** In this scenario, some consumers experience the transformation of scenario 1, but many are left behind, resulting in a significant digital divide and highly fragmented consumption. The result is an impoverished broadcast sector, a highly fragmented online sector, and a major digital and cultural deficit among those who are unable to participate fully in the new broadband world.
- **Scenario Four: Stagnation.** In this scenario we get much slower than expected growth in demand for new broadband and digital services, and large-scale investment in new technologies is not forthcoming. It suggests a world in which the UK lags significantly behind its main international competitors, and also one in which there is less investment and innovation in new services and content creation.

2.2.2. These four scenarios are not meant as predictions of actual outcomes, but rather as tools for thinking about possible developments in the broadcasting and electronic media world, and their implications for regulation and policy.

2.3. Policy and regulatory challenges

2.3.1. In such an uncertain world, the challenge for policy makers and regulators is to help create an environment which facilitates the potentially positive developments identified in some of the scenarios, while protecting citizens and consumers from the potential disadvantages.

2.3.2. This suggests perhaps three key overall aims:

- A clear focus on ensuring effective competition in the creation, packaging and distribution of audiovisual content, to help create an environment which supports innovation and creativity - taking advantage of the dynamic change and growth which the new technologies and markets make possible;

- Carefully targeted and strategic public policy initiatives to help secure significant and enduring social and citizenship objectives. I suggest the following for debate:
 - Securing universal access to digital TV and high speed broadband services so that everyone benefits from them;
 - Helping individuals understand how to use and get most value from the media choices they are presented with;
 - Ensuring that important public interest content is still made available, preferably by a number of different suppliers, in forms which people find convenient to use;
 - Supporting UK production of high quality audiovisual content, as part of a strong creative industries sector;
- A reduction in regulation and its associated costs – for example with a greater reliance on self-regulation, and the exercise of individual consumer responsibility to address concerns about undesirable content.

2.3.3. The emphasis placed on each objective and the precise policy instruments selected would clearly differ from scenario to scenario.

2.4. Competition

2.4.1. First, regulation needs to address the challenge of securing effective competition in broadcasting and related markets. The changes mapped out in this report stand the best chance of delivering benefits to consumers if the full potential of creative and dynamic competition is realised.

2.4.2. If scenario 1, transformation, emerges, then the task may simply be that of ensuring effective enforcement of standard competition law. Some would argue, indeed, that scenario 1 becomes more likely if *ex ante* regulatory intervention is minimised. The stagnation and consolidation scenarios, however, suggest only a few powerful market players, possibly with high degrees of both horizontal and vertical integration, in which case tougher measures may be needed. New issues might also emerge:

- The entry into the broadcasting or content provision markets of major players from adjacent sectors, who may be able to lever market power from one market into another – for example the telecommunications network operators or powerful internet-based companies;
- New platforms and software applications might provide the opportunity for companies to establish powerful gateways, especially if there is a high level of vertical integration in the sector;
- Access to new media rights will be a critical issue for potential new service providers and platforms;

- Potentially high switching costs might prevent consumers readily moving from one supplier to another – this “stickiness” in the market could reduce the effectiveness of competition;
- Market entry is often highly dependent on suitable spectrum being made available. Policy for the allocation of spectrum, including that released on switchover, will have a key influence on the shape of the market;
- The possible impact of the BBC and its licence fee funded and commercial activities on the rest of the market could also become a more significant concern – especially as the BBC, to remain relevant in the broadband world, will need to redesign the scope of its public funded activities to include new on-demand distribution systems, and possibly other new services.

2.4.3. Against this background, the temptation for any policy maker or regulator might be to anticipate the problems and to try to design measures to pre-empt their occurrence. However this will not be a good model going forward – the scenario analysis, with the great uncertainties it reveals, demonstrates the high risks associated with designing *ex ante* competition regulation in a fast-changing world. Given this, the overall challenge for competition regulation in broadcasting and electronic media markets is fourfold:

- Making sure regulation doesn’t get in the way of new markets and their development, by over-regulating, protecting incumbents or disincentivising investment;
- Promoting the process of competition, for example by:
 - Securing better consumer information;
 - Measures to reduce consumer switching costs;
 - Removing entry barriers (including spectrum);
- Taking a converged approach across the communications sector, including, for example, spectrum policy and effective regulation of remaining telecommunications network bottlenecks;
- Effective enforcement of competition policy, and policing of any remaining *ex ante* rules (for example those governing the BBC or access to technical platforms).

2.4.4. Above all, the audiovisual market will be much “messier”, more complex, than it is at present. Market definitions will be more fluid, monopoly positions may be very temporary, significant countervailing power may exist, and the complexities of so-called “two-sided markets” will need to be taken into account by regulators.

2.5. Public interest objectives for content

- 2.5.1. Second, the longer term future of public service broadcasting – or public interest content as it might be better described – needs to be considered. Some conclusions are common to all the scenarios:
- In all of them, I believe, there remains a public interest rationale for intervention in the sector to achieve important social objectives, alongside a well-functioning competitive market, but the scale and nature of that intervention may well differ;
 - An end to spectrum scarcity and increased competition will undermine the old model of implicit subsidies for public objectives. New measures will almost certainly be needed if it is decided to continue to secure plurality in the provision of public interest content – involving support for Channel 4 and/or for other providers of such content;
 - The provision of public interest content will need to be fit-for-purpose in the broadband world – this means increasing use of on-demand and interactive content, rather than conventional scheduled channels.
- 2.5.2. But the optimal scale, scope and design of any public intervention will depend on the prevailing scenario. For example, if, as seems possible, the broadband market delivers a much greater diversity of content than the old broadcast world, then it may be sensible both to reduce the scale of intervention over time, and to direct proportionately more support into those genres or types of content which are underprovided by the market. It may mean thinking more radically about new ways of meeting public interest objectives – for example by providing public spaces for the exchange of views and opinions by individual citizens, rather than funding broadcasters to deliver output to users. It may mean support for a “creative commons” to provide more open access to a wealth of audiovisual material.
- 2.5.3. Importantly, an on-demand environment may mean that public funding can be used more efficiently – for example, removing the need for the BBC to support several 24 hour scheduled channels, and allowing its investment to be focused on a smaller volume of high quality public interest content, made available on-demand. It may also be sensible to direct more public spending towards securing universal access to broadband content provided in the market, and less into the creation of new content.
- 2.5.4. Alternatively, other scenarios may call for continued high levels of investment in public interest content – to supplement the range and diversity of content offered by a highly concentrated sector, to provide a gold standard of impartial news and current affairs, or to counter the impact of extreme fragmentation and the digital divide. The extreme fragmentation scenario poses possibly the biggest risk to public interest objectives over the 10 year horizon – a focused approach may be needed both to bring more people into the broadband world, and to ensure high quality content is still available to those who, for whatever reason, remain outside.
- 2.5.5. The extent to which public funding should be concentrated or dispersed may also be informed by the scenarios. In the “transformation” world, where users are accustomed to accessing content from a wide range of

sources, there is an argument for spreading public funding among many diverse content providers, with competition for use of those funds. Where consolidation or stagnation has occurred, with only a few main content providers, a large publicly-funded institution like the BBC, perhaps supplemented by Channel 4, may be a more effective approach. In all scenarios, however, a wider dispersion of public funding might be one way of encouraging a more diverse and pluralistic market to emerge. There is clearly a debate to be had – real innovation and creativity might only be secured if measures are taken to find completely new providers of content, who will not be constrained by a desire to protect their established services.

- 2.5.6. Given the time it is likely to take to design and implement a new model to secure the public interest in content provision, there is a strong case for beginning work on these issues earlier rather than later – and certainly well before the end of the switchover process.

2.6. Content standards regulation

- 2.6.1. Third, content standards regulation will also need to be overhauled, as the sector changes. A decision will be needed about the regulation, if any, of internet-based content. At the same time, the rationale for special regulation of broadcast content is diminishing – there is more choice, consumers can control when and how they consume the content and, in a broadband world, the content consumed may have much less impact and influence on individuals than did radio and TV in a limited channel world.
- 2.6.2. In those scenarios which visualise a dynamic and diverse on-demand world, a framework which is still based on mandatory rules could be both ineffective and undesirable:
- Application of mandatory regulation to content provided over the internet may be costly, ineffective or both - it will become harder to regulate content effectively in a broadband world – where content can be sourced from overseas, and there will be many hundreds of thousands of content providers, and intrusive regulation may have an adverse effect on innovation and growth in the sector;
 - It would be difficult to decide who to include in such a system (just broadcasters or a wider range of content packagers and suppliers?), and could risk the extension of regulation to entities such as newspaper publishers who have hitherto remained outside the broadcast regulation framework;
 - Any regulatory demarcation between different types of content provider may set up undesirable incentives – for example content providers might move to an on-demand service to escape regulation applied to broadcast services;
 - Consumers may not want it – views differ about what are and are not acceptable standards, and many value the freedom of expression provided by the internet.

- 2.6.3. There is strong case therefore for considering the feasibility of moving to a system based on the twin pillars of:
- Individual responsibility – the expectation that consumers should be required to take on more responsibility for protecting themselves and their children from access to undesirable content; and
 - Voluntary regulation or “opt-in” regulation of content standards by commercial content providers or aggregators – broadcast or online.
- 2.6.4. A voluntary system of content standards regulation would give content providers and aggregators the opportunity to “opt-in” to an agreed regulatory framework if they wish to do so. Incentives could be provided to influence their choice, probably including “accreditation” or “kite marking”. An opt-in system would also give consumers the choice of whether or not to use content suppliers who agree to certain standards – important in a world in which consumer expectations about taste, decency etc are becoming fragmented. It would avoid regulators having to choose who should be within the system and who should remain outside it – and it would almost certainly reduce regulatory costs compared with the alternatives. It would be consistent with the exercise by consumers of their own individual responsibility to protect themselves and their children, by using the available information and technical tools for filtering and blocking undesirable content.
- 2.6.5. Of course, if instead of transformation, we have something closer to the consolidation or stagnation scenarios, it may be both desirable and feasible for existing content standards frameworks to exist for some time. Licensed scheduled channels, for example, might still be mandated to maintain agreed standards, within a clear regulatory framework, alongside a self-regulatory approach for “television-like” on-demand services. The generality of content found on the internet – for example user-generated content – would remain largely unregulated. In time, mandatory regulation might be applied only to those broadcast channels designated as “public services” (for example those which have privileged access to spectrum). In practice, we may see a gradual move from the established approach to a new framework over time as the sector changes – with some co-existence of the different systems for a period of time. The challenge for policy and regulation is to map out in detail how this transitional period might work.

2.7. Wider public policy goals

- 2.7.1. Finally, we may need to consider new strategic objectives in some key policy areas. For some years, we have had a range of policies in the UK which have had a mix of cultural, social and economic objectives. They include measures to support the independent production sector, and to help sustain regional production, especially for television content. These measures will either prove to be irrelevant in future (i.e. no longer needed, because they have done their job) or difficult to sustain without the design of a new, more explicit approach, backed up with sufficient funding. The independent production quota, and codes of supply, for example, may no longer be needed in 2016. Measures to support regional production – if still thought desirable – will need to be overhauled.

2.7.2. Alongside or instead of these aims, will be three significant new policy challenges:

- Supporting original UK production (both in-house and independent), and enhancing the UK's global competitive position. Ofcom's notion of a Public Service Publisher (PSP), or some variant of it, might be revisited here as one way of addressing the challenge of encouraging the UK creative sector to develop its new media strengths further, alongside its traditional broadcast-related skills;
- Helping to create better informed consumers. Consumer information and understanding are the key to realising many of the potential benefits offered by the developments outlined in this report – consumers need a good understanding of how to use and interpret different media, how to access different networks, devices and functionalities, and how to choose between complicated bundles of services. The market, left to itself, may not always deliver the best outcome, so some intervention may be needed;
- Ensuring universal access to a modern high speed broadband network. Perhaps the biggest impending issue is that of the underlying communications infrastructure in the UK and its universal availability – ideally delivering not just high quality content to everyone, but also providing support for many other elements of modern economic and social life. Several interviewees in this study expressed the concern that investment would not be forthcoming to support widely available fibre-based access networks. This would seem to be a major area for further policy debate.

2.8. Concluding observations

2.8.1. Overall, the future policy and regulatory environment will be very different from that of the past 50 years. The old broadcasting world was shaped by a high degree of state intervention and relative stability. Public policy initiatives have directly determined or influenced broadcasting market developments in all parts of the sector – arguably with an ever-increasing web of regulation. We now have a great opportunity to re-design the framework in favour of greater reliance on market developments to drive innovation, quality and choice for consumers, alongside less detailed and complex regulation. Public policy interventions will still be needed, but they must be strategic, targeted and possibly less extensive than in the past.

2.8.2. Given the uncertainties in the broadcasting market, it will increasingly be important to be clear about the overall strategic direction and policy goals, but to build sufficient flexibility into the execution of policy over time so as to be able to adapt to the changes that occur. This suggests:

- Mapping out the strategic policy direction and the key interventions that are associated with it;
- Building in more flexibility to alter the detail of regulation over time, within an agreed and more strategic overall framework;

- Setting targets for less regulation, given the potentially high costs of making mistakes and getting in the way of investment and innovation;
- Ensuring a converged approach across the communications sector – for example in the areas of access regulation and spectrum policy;
- And, finally, beginning early thinking and debate on the design of the new framework to meet the challenges posed by 2016.

3. Feedback from interviews

3.1. Introduction

3.1.1. As part of the scenario building work, interviews were conducted with 16 senior executives in the broadcasting and related audiovisual sectors. The interviews were conducted between April and June 2006, using a checklist of questions. This chapter outlines the main themes discussed with the interviewees, and the topic headings used below are those contained in that checklist. A more detailed discussion of market trends, which can be read alongside this chapter, is contained in the annex to this report.

3.2. Technology change

3.2.1. First, interviewees were asked what single or group of technology developments had the capacity to transform the broadcasting and electronic media sector in the UK over the next 10 years. By far the most common answer, either on its own or as part of a bundle of technologies, was high speed broadband. Most interviewees were confident that broadband would have a profound impact on the market, leading to radical changes in patterns of distribution, consumption and content type.

3.2.2. Other suggestions were:

- Wireless technologies: which would help transform connectivity in the home and provide users with personal, portable media devices;
- Next generation peer to peer developments, which would help bring down the cost of content distribution via the internet;
- Increased storage capacity – which would transform how we manage and store many different types of content in our own personalised media archives;
- The next stage of development in search tools and services – which would be key to helping people find the content they value most.

3.2.3. Most interviewees qualified their answers by noting that, in all likelihood, we would see a combination of technologies leading in various ways and combinations to a step-change in the functionalities available to consumers.

3.3. Key uncertainties

3.3.1. Interviewees were asked what potentially significant developments they were most uncertain about and found most difficult to assess. Again, there was a strong cluster of answers around a single topic: the uncertainty about the viability of business models in the new broadband, on-demand world. Issues included the future of TV advertising – about which there was significant pessimism - the extent to which consumers would be willing to pay for on-demand content, the costs of distributing audiovisual content to large numbers of users across the internet, and the extent to which

consumption of content would be displaced by other uses of the internet, or indeed other pastimes. Several warned that we should not, as of right, expect the TV content market to continue to be as well supported by consumers and as well funded as in the past, and some argued that we should expect many of the low audience cable/satellite channels to disappear over the next decade.

3.3.2. Related to this main theme, there were uncertainties about who would prosper in the new world – for example, the old broadcast brands, or new internet-based brands. One or two expressed the view that all the dominant funding models (TV spot advertising, licence fee, and subscription) would come under pressure.

3.3.3. Other uncertainties identified during the interviews included:

- The speed with which market transformation will happen – while many could agree on the direction of travel, there was significant uncertainty about the timescale – although, over 10 years, significant change is thought to be highly likely;
- The impact which new technologies will have on consumption patterns – key issues here were the likely mix of broadcast and on-demand consumption, and the ultimate importance of user generated content;
- The future for portable or mobile content – several interviewees noted that it is far from clear how this market will develop. The functionality demanded, the devices and the nature of content likely to be attractive to users – all were uncertain;
- The extent to which investment in next generation fibre-based access networks would be forthcoming – some argued that there is a major risk, given the UK market structure and the strategies of the main players, that the UK will be left behind its key international competitors.

3.4. Consumer behaviour

3.4.1. Next, interviewees were asked about changes in consumer behaviour, and in particular their expectation regarding the mix of on-demand and broadcast content that would be consumed in 5–10 years' time.

3.4.2. This question prompted the most agreement among interviewees. Almost all thought that there would be a significant amount of on-demand consumption by the end of the decade – perhaps as much as one third to a half of all viewing, a couple of respondents said (although no-one thought it would account for more than half of consumption by then). Broadcast TV would no longer remain the default viewing mode – especially among younger age groups – and consumers would be looking for new ways of navigating around the content they could access via on-demand services.

3.4.3. Broadcast TV channels would remain important for certain types of programming – for example news, live events, major landmarks in the

schedule - but pre-scheduled programming in general would become much less significant over time. Radio stations might retain a larger share of the radio market because of their greater immediacy and ability to forge strong relationships between presenters and listeners, but, even here, podcasting of some types of radio programming was expected to grow strongly.

3.4.4. Other trends highlighted in the discussions included:

- Personalisation of content and an increasing fragmentation of consumption – with consumers finding content (whether audio or video) much more tailored to their own needs and interests;
- Social networking and conversation on the internet – more time was expected to be spent by people engaging in virtual conversations over the internet, which might also include exchange of self-generated content, or involvement in participative media such as multi-player games;
- Managing content – identified as something users enjoy doing as a pastime in its own right – for example constructing their own play lists of favourite music, archiving photos and video clips, managing other content. This was expected to become more not less important over time.

3.5. Content and services

3.5.1. Interviewees were then asked for their thoughts on the changes in content which they might expect to see, against this background of technology and consumer change. Answers were more divided, with three key trends predicted.

3.5.2. First, a greater polarisation of content was expected. "Fewer, but bigger and better" programmes would be released each week via broadcast scheduled and on-demand services, while much of what fills today's broadcast schedules would struggle to find viewers and revenues. At one extreme would be programmes designed to make an impact and attract substantial audiences. At the other, we might find an increasing amount of niche targeted programmes – never expected to reach a mass audience, but with a specialist market amongst certain viewers and advertisers. A possible downside of these trends is that there might be less room for risk taking.

3.5.3. Second, and related to the above, there might be a risk to the funding of high quality content, and more specifically to PSB content. Fragmentation of audiences and revenues could make it harder to put together viable funding for certain types of programming in future. Financial pressures faced by broadcasters and producers would reduce the extent to which they are willing to invest in such a wide and diverse range of programming as has been the case in the past. It would be easiest to raise money to make tried and tested programmes, rather than to fund risky new ideas. Marketing costs for each hour of content are likely to take a higher proportion of programme budgets than they currently do. Producers might be incentivised to make content and formats aimed more specifically at global markets

than is currently the case – with an impact on the nature of the programming available for viewers in the UK.

- 3.5.4. There might be an associated risk to the BBC – a breakdown of what some called the PSB consensus in the UK, as commercial broadcasters become even more aware of the possible impact of the BBC on their own competitive position and potential profitability.
- 3.5.5. Third, there was a sense that we might see some fundamental change in the type of content available and consumed on broadband networks – driven both by the growth in user generated content, but also as content evolves to reflect patterns of web usage. Examples given included: more bite-sized, attention-grabbing content, more “snacking”, content which requires much more active participation – perhaps over extended periods, like electronic games, advertiser-funded lifestyle content, broadband versions of magazines, content created and distributed by local and other virtual communities of interest. The general message was: don’t underestimate how much the internet and broadband could change the form of content generated as well as how it is accessed.
- 3.5.6. In radio, the main trend identified was further segmentation, with many more music stations targeted at very precise demographics/interest groups.

3.6. Market structure and competition

- 3.6.1. Interviewees were next asked for their views on the evolving nature of competition in the broadcasting and electronic media market, and how the market might change over the 10 years time horizon. Many said that this was the hardest of the trends to predict with any confidence, as it depended on the coming together of a range of developments, and of the individual business strategies of every player involved. Overall, there was a balance of opinion which thought that the sector would be more open and competitive over the next 10 years, as new platforms emerged and as entry barriers were lowered. But some risks were identified, too, including the possible emergence of new bottlenecks.
- 3.6.2. Other suggestions included:
 - The rise of new content aggregators and packagers with trusted brands – while broadcast channels might decline in importance, consumers would still need organisations to bring content together and help consumers find their way around it in convenient ways. The new user interfaces would look much more like those we find in the internet world today, rather than those provided by broadcast channels;
 - The importance of customer relationship management – although there may be many thousands of content providers, it is likely that there will be just a few companies who are expert in managing direct relationships with consumers, for example operating billing systems, providing technology back up and support, and perhaps operating platforms and systems for other content providers;

- Further consolidation in the production sector, as funding models change and the market becomes more global in its outlook. This might be accompanied by the emergence of direct relationships between producers or rights owners and consumers in some limited cases;
- General consolidation in the sector as a whole, as companies seek mergers and alliances as a protection against extreme competition and in the search for economies of scale and scope;
- A more globally structured market – both in terms of ownership, and in the focus of content investment and distribution/marketing strategies – which, some argued, offers enormous potential for the UK creative industries sector.

3.7. Policy and regulatory challenges

3.7.1. Finally, interviewees were given an opportunity to list the key policy and regulatory challenges they thought that this study should include in its remit. They were:

- The future of content standards regulation, especially in the context of the review of the TVWF directive;
- The future of public service broadcasting – with mounting challenges to the old model anticipated, especially to the commercial PSBs, doubts about the long term prospects for Channel 4 and a perceived need to conduct a timely review of PSB funding;
- The scale and scope of the BBC's services, and their impact on the commercial sector;
- Infrastructure investment – and the case for supporting universal access to high speed fibre-based broadband services;
- Creative industries issues – in particular a concern how the UK might best take advantage of emerging global opportunities in new media;
- Competition issues – although marked by a general sense that regulation should be light touch and rely as far as possible on the competition law framework;
- The impact of convergence on the regulatory framework – what is the "next generation Ofcom" and what should its focus be?
- Addressing the digital divide – is it important and if so what can be done about it?
- IPR – piracy still thought to be a real problem by some interviewees;
- Timing and flexibility – it was noted that the policy/regulatory cycle needs to speed up to match changes in the external environment – the current framework can last for another three years, some said, but

then we need an approach which has a clear strategic direction, but which can change more quickly and flexibly over time.

4. The four scenarios

4.1. Introduction

4.1.1. So, looking 10 years ahead, we have some pretty good clues about the main trends, but we can also see a huge number of uncertainties. This is where scenario analysis has a role to play. Scenario analysis involves the construction of a set of different views of what the world might look like at some defined stage in the future. Scenarios are not meant to be predictions of what will happen, but to provide different plausible versions of possible outcomes. Their usefulness lies in their ability to encourage us all to think imaginatively about how the world might develop, and how to deal with the different possible outcomes.³

4.1.2. Scenarios should be internally consistent – that is, their various components should tell a consistent and coherent story, and provide a plausible narrative of future developments. They should also be stretching, so that the effects of extreme developments can be explored and anticipated.

4.2. The approach taken for this report

4.2.1. For this report, I adopted a simplified version of the conventional approach to scenario building, using four stages:

- Background research and analysis – drawing on a range of published material to construct a view of the main trends likely to affect the broadcasting and electronic media sector over the next 10 years;
- Expert views – a small number of interviews with senior executives in the industry, to gain their perspective on the big issues and challenges;
- Design of the scenarios, based on a small number of key variables;
- Workshop discussions – with a small group of people from DCMS, DTI and Ofcom - to test the plausibility of the scenarios and their main dimensions.

4.3. The dimensions used in the scenarios

4.3.1. Typically, scenario building involves the identification of a “long list” of variables with the potential to affect the industry/organisation concerned. A range of possible outcomes for each variable is then determined. Finally, the long list is reduced to a shorter list of key variables or dimensions, around which three or four scenarios can be constructed. The key variables – as well as being significant determinants of market development - should also be informed by the main uncertainties in the market.⁴

³ For a useful discussion of scenario analysis, see various papers by Pierre Wack (including “Shooting the Rapids”, Harvard Business Review, 1985)) and Paul Schoemaker, (Research Director, Wharton School, University of Pennsylvania).

⁴ For example, in the Bournemouth Media School Future Reflections Project, three key variables eventually formed the pivotal inputs for the scenarios:

- Consumers’ approach to media consumption;
- Health of the economy;

4.3.2. Based on the analysis set out in the preceding chapter, and then validated in discussions with industry executives, I have used variables drawn from four broad areas, which appear likely to have most impact on the outcome of the broadcasting/electronic media markets over the next 10 years:

- Pace of new technology adoption;
- Media consumption patterns;
- Evolution of content and services;
- Market structure and competition.

Summary of the Key Variables and their Dimensions

Pace of new technology adoption

Moderate ----- *Variable* -----
Fast

Media consumption

Uncertain, confused ----- *Cautiously receptive* ----- *Confident, engaged*

Content and services

Wide and diverse range ----- *Polarised* ----- *Fragmented, user-generated*

Market structure and competition

Closed ----- *Consolidated* -----
Open

What is not included

4.3.3. Economic and social trends have not been explicitly built into this exercise. Implicitly, the four variables chosen all reflect an underlying assumption of relatively stable economic growth over the period – similar to that seen over the past 10 years. They also reflect the underlying assumption that there will be no radical change in what society expects from its media sector (for example broad public support for public service broadcasting) or in our wider social and cultural values. It would be possible, however, to

-
- Characteristics of industry structure and competition.

take the scenarios constructed and to test them against different economic and societal assumptions, to see if they still hold good.

4.4. The scenarios in outline

4.4.1. Rather than construct the scenarios in a random manner, the approach I have chosen is to begin with one scenario - "transformation" - which is built around some of the more ambitious developments and trends identified in the preceding chapter – the aim of this is to explore what the sector might look like if we had rapid change in each of the four variables selected. This scenario is described in most detail.

4.4.2. I have then chosen three other scenarios to reflect some of the main uncertainties that arise from the analysis or were identified in the interviews with senior executives, and which are of interest from a regulatory or policy perspective. They are:

- "Consolidation" - a well-funded dynamic outcome, but reflecting concerns about a possible lack of competition and insufficient plurality;
- "Extreme fragmentation" - new technologies and services benefit some, but reflecting concerns about the digital divide and future viability of high quality content production;
- "Stagnation" – established broadcasters remain strong, but reflecting concerns about lack of innovation and the UK's international competitiveness.

4.4.3. In summary form, the four scenarios I have chosen to analyse are:

Transformation: a very fast pace of new technology adoption, supported by new fibre-based broadband access networks, drives a major change in the broadcasting and electronic media sector. There is a high proportion of on-demand viewing and listening, as confident consumers enthusiastically engage with and control their use of the new media, and consumption is much more segmented, as users choose the content they value most. There is a dramatic decline in the use of scheduled broadcast TV. Instead, many consumers make extensive use of content delivered over the open internet. The nature of content produced and consumed changes, too. Two-way use of the media grows in importance with a significant increase in user-generated content. Some content suppliers are able to establish direct relationships with consumers through this new medium, bypassing intermediaries. Distribution platforms are no longer part of vertically integrated media organisations – rather they act as common carriers, linking millions of individual consumers to many thousands of content suppliers. The emphasis is on search, rather than on content aggregation.

Consolidation: new technology is widely adopted and consumers are cautiously receptive to new media. Broadcast services remain an important part of the media landscape, alongside a growing use of on-demand services. Faced with a complex set of media choices, consumers place their trust in content aggregators and packagers to help them navigate through the new marketplace – either those who manage platforms and services within a walled garden, or who provide a convenient and

trusted gateway to the open internet. Content aggregators in turn consolidate, as they respond to competition and aim for scale economies. Vertical integration is common – content suppliers/aggregators also often own the distribution “pipes”. There are only a few companies accounting for most activity in the market, with a mix of old broadcast brands and new gateways.

Extreme fragmentation: the take-up and usage rates for new technologies and services are highly variable across different user groups. Audiences for conventional broadcasting remain high among older and less well off households, but advertiser-funded channels suffer as advertisers seek more affluent targets elsewhere. New media trends are equally diverse – as consumers increasingly divide into niches, with quite different and quickly changing tastes, and very different patterns of use for different types of new media. User-generated content displaces much traditional media consumption. Markets are open, but investment risks are high. Programme funding is at risk, and it is a challenge for market players to develop sustainable business models in this fast moving and fickle world.

Stagnation: growth in new technology adoption is much slower than the enthusiasts predict, broadband take-up stalls, there is little demand for mobile TV, and on-demand content remains at the margins of media consumption. Broadcast channels remain by far the most important source of entertainment, and broadcasters are able to ward off competition through continued investment in programming and by bidding up the price of programme rights. New media entrants are unable to attract sufficient subscribers or advertisers to be able to invest in new content, while traditional broadcasters are unwilling to cannibalise their audiences for their scheduled channels.

4.5. Scenario One: Transformation

"Fast pace of new technology adoption, confident consumers, high levels of user participation, open markets"

Key features of scenario one

- Broadband take-up (at least 8 Mb/s and above downstream capacity, with extensive investment in fibre-based access networks) reaches almost all households;
- Home media centres become commonplace, with high capacity hard disk storage in home servers, and wireless distribution throughout the home;
- Widespread use of portable devices, especially for downloads of clips, re-versioned video and audio content;
- Extensive use of content delivered on-demand over the internet, and available on TV screens as well as PCs;
- Sharp decline or disappearance of conventional linear channels;
- Many new content suppliers, with a range of new funding models;
- Importance of user-generated content and communications;
- Key role for more sophisticated search tools;
- Disaggregated market – distribution platforms are "common carriers";
- Open and competitive market structure, international outlook.

Technology adoption

4.5.1. As its title suggests, this scenario depicts a complete transformation of the broadcasting sector. Nothing is just as we know it today. The vast majority of households have high speed broadband (including the return path) delivered over fibre, rather than copper, coupled with extensive home storage. Most also have access to a high capacity digital broadcast distribution channel. They have already established an extensive and integrated archive of their own personalised content, stored on their home media server - which includes both professionally-produced movies and programmes, and their own self-generated material. This content store can be accessed by interconnected devices around the wireless home, or downloaded on to portable devices for external use.

- 4.5.2. All the assumed developments in this scenario are credible and based on currently available technology or its extension.⁵ Perhaps the two key leaps are to assume that a) there is extensive provision of fibre-to-the-home, and b) that the different technologies and devices become fully integrated and user friendly – without these two key steps, it is unlikely we will see such a fast pace of adoption.

Media consumption

- 4.5.3. This is a fully on-demand world. In this scenario, consumers will take full advantage of on-demand capabilities offered by broadband and regard live TV and even radio as the exception rather than the rule. Most households will have on-demand access to newly released DRM-protected content, made available from central servers, or downloaded to the home server for a fixed period of time, before being deleted. There will also be a huge range of archive material (the so-called "long tail") available for downloading – either for a pay per view fee, or perhaps for a subscription.
- 4.5.4. A particular feature of this scenario is the extent to which users will enjoy managing and organising their own content, in stark contrast to the passive consumption of today. As well as the family's central home content store, individuals will create and continue to build their own personal electronic libraries or archives of text and audiovisual material, perhaps over many years – a very personal mix of films, programmes, music, games, clips, photos, home videos and diverse content from the internet. They will spend time interacting with this material, or in social networking via the internet, and perhaps taking part in multi-player online games. There will be many demands on each individual's leisure time, and many of these new activities will displace viewing of more conventional audiovisual material.

Content and services

- 4.5.5. With all-pervasive high-speed broadband delivery, there will be a proliferation of new on-demand content services. The scheduled channel will have outlived its purpose as a rather anachronistic means of packaging and organising content, to be replaced by much more sophisticated search and navigation tools. The user interface of the future will not be a broadcast channel – but will evolve from the front page of today's internet service providers or portals. Content will still be released via these new portals – backed up by marketing and promotional campaigns. But programmes will be available on-demand for a period of time rather than being broadcast only once or twice in the week.
- 4.5.6. Evolving search techniques will focus on helping users find content which is directly relevant to them – perhaps by matching their tastes and interests

⁵ Broadband at 8 mb/s is already part of BT's ADSL service in some areas of the UK, and will be offered by cable, too, although without further investment in fibre to the street cabinet or home, it will reach only 50-60 per cent of households. Current technologies will permit IPTV services to be offered, and acceptable on-demand TV to be delivered, over the internet. Peer to peer (P2P) applications help to keep down the costs to content providers of delivering content over the internet. Home storage capabilities are fast increasing. The most recent Sky HD box has 160 gigabytes of storage, for example. At least three options for delivering audiovisual content to portable devices are under current development and trial, and spectrum suitable for them is being released by Ofcom.

to those of like-minded consumers, perhaps by allowing users to follow expert recommendations, perhaps by building smart links between similar types of content. Few if any scheduled channels will survive into this new world – rather, one could imagine broadcast channels being used mainly as a means of downloading content onto home servers, but with periodic live transmissions for big events etc. Consumers will be able to access all of this live, first release and long tail archive material through the same user interface or electronic content guide. The distinction between linear and non-linear broadcasting will be meaningless.

- 4.5.7. Conventionally-structured video and audio programmes, with standard running times and a narrative construction may still be popular, but web-based content will also be in demand, designed around participation, interaction and using many different new formats. Audio content will see perhaps an even bigger transformation. Music downloads and speech podcasts will account for the majority of audio consumption. DAB radio stations will largely serve as promotional vehicles for download services.
- 4.5.8. The range of content available will be greater than is the case today. High speed broadband connections to the public internet will make it possible to download content (subject to DRM protection constraints) from around the world. Niche interests will be better catered for by suppliers from around the world serving smaller audiences which can be aggregated across national boundaries. The lower distribution and production costs also mean that we will see the emergence of special interest services – rather like the print magazines of today – which may contain a mix of text, graphics and video content, as well as user generated contributions – for example broadband versions of magazines for railway fans.
- 4.5.9. Expectations about content standards (and the need for external regulation of standards) will change too. In a largely consumer-controlled media environment, a premium is likely to be placed on free expression and lack of censorship. There is likely to be little consensus in any event about what might be deemed to be acceptable standards for on-demand content. As a result, users will increasingly wish to choose their own degree of regulation – either by subscribing to service providers who promise family friendly content, or by using the available technology and information to manage both their own and their children’s consumption.

Market structure and competition

- 4.5.10. In this scenario we see the emergence of a well funded, open and highly competitive market. The different ways of delivering and charging for content could unlock more consumer value, and hence allow more revenues to be generated. While advertiser-funded linear TV will be much less important, new forms of targeted advertising and sponsorship around content delivered over the internet might develop in its place. Content will be bundled “for free” with other services offered. But the balance of funding is likely to shift in favour of direct payment, rather than advertising and sponsorship.
- 4.5.11. There will be competition between the different distribution platforms (digital broadcast, cable, broadband DSL and fibre, and possibly Wimax), and

platforms will operate as “common carriers” – consumers have turned away from managed content services offered by vertically integrated companies. It will be more difficult to use exclusive ownership of key rights to foreclose competition, as there will be more potential bidders for the exploitation of such rights, and consumers will be able to access different packages (e.g. of sports rights) via their chosen platform.

- 4.5.12. In this world, the concept of a licensed broadcaster will have little meaning – there will be a vast number of content providers based in the UK and overseas – and many will cater for very specialist tastes. Content will be pulled by rather than pushed to the consumer. Much content will be accessed via active search – and search tools will become increasingly personalised – recognising the tastes and preferences of each individual user. Experts in managing business and technical relationships with customers will emerge – providing billing and service arrangements, possibly associated with the providers of the key distribution platforms.
- 4.5.13. Content producers – for example football clubs with valuable rights, key comedy and entertainment talent - will be able to by-pass the new intermediaries and market directly to consumers. UK producers might also benefit from access to a larger global market – although they themselves will also face competition from US and other global content, which will now be much more accessible to UK consumers.

How credible is this scenario?

- 4.5.14. The participants in this study agreed that many of the features of this scenario are likely developments in the longer term. The main uncertainties were thought to be:
- The timescale for these developments to become mainstream – some thought perhaps longer than 10 years, as only generational shifts would account for such major changes in consumer behaviour;
 - The likely availability of high capacity broadband – much depends, it was noted, on what comes after ADSL, and the key next generation access investment decisions to be made by BT and others;
 - The extent to which scheduled channels or other mainstream content packagers would disappear completely – no-one surveyed predicted the complete demise of broadcast services;
 - The extent to which the market could sustain a proliferation of content producers – rather than a smaller number of more integrated companies – consolidation was thought by some to be more likely;
 - The extent to which fragmentation of consumption would deliver benefits to consumers, or might alternatively undermine the levels of funding available to UK content providers – some painted a gloomy picture of funding prospects.
- 4.5.15. We examine some of these uncertainties in the three remaining scenarios.

4.6. Scenario Two: Consolidation

"Reasonable pace of technology adoption, cautiously receptive consumers, polarised content, concentrated and closed market"

Key features of scenario two

- Broadband take-up (2Mb/s and above, largely via ADSL and cable) reaches most households;
- Set top box storage is widely used (but home media centres are not yet commonplace);
- Broadcast channels remain important, alongside new content packagers and aggregators;
- Widespread use of portable TV devices – broadcast streams more popular than downloads;
- Internet used to provide access to on-demand content in niche markets and also as a replacement for DVDs;
- TV Advertising model is resilient – remains a tried and tested way of reaching mass audiences;
- Content becomes polarised into either high production value event-style programming, or niche content (the "collapse of the middle");
- Concentrated market with high degree of vertical and horizontal integration.

Technology adoption

4.6.1. In this scenario, new technology rolls out at a reasonably fast pace, and in many respects the outcome is not that different from scenario one, with broadband becoming more widely used – as prices fall and capacity/speeds rise. But the outcome is based on ADSL, not fibre access networks. Industry has not yet reached full convergence in the home, and the PC is still used very differently from the TV screen. Mobile TV is based on a broadcasting model, rather than a 3/4G telecoms-like platform, and mobile devices are largely used either for communications or for accessing conventional TV on the move.

4.6.2. TV broadcasts are largely, as now, received via DSat, cable or DTT (IPTV systems take a small but growing share of the market). The internet is used for on-demand content, but not for mainstream broadcast programming. DAB radio is available throughout the UK, and all new sets are DAB receivers.

Media consumption

- 4.6.3. Consumers are in a mixed broadcast/on-demand world. They will still receive a substantial part of their audiovisual entertainment from more conventional scheduled channels, but will use catch-up/PVRs to time shift their viewing, and use on-demand services for some niche content and for access to archive material. The PC and TV are still used in different ways, and broadband content is not widely viewed over the TV set, as home media centres have proved difficult to install and use.
- 4.6.4. Catch-up services (see your favourite programmes during a 7 day window) are now provided as a matter of course by all broadcasters. There has proved to be limited commercial value in offering such services, though, as viewers expect catch-up access to be free or low cost, and they can use their PVR storage capacity to replicate most of what a catch-up service can offer.

Content and services

- 4.6.5. There will still be a high level of consumption of conventional narrative content, and sufficient funding will be available to support a strong supply of UK content. There will be some polarisation of content types, however, as the patterns of consumption are affected by the use of PVRs and catch-up. Viewing of middling quality programming suffers, as viewers use PVRs to extend their personal "peak" and focus on higher value programming. Content investment will be increasingly polarised between the high end, heavily marketed content aimed at large audiences, and the wider range of niche interest material, which can reach audiences prepared to pay for content, or who are especially valued by advertisers.
- 4.6.6. Niche interest content will be increasingly viewed on-demand over broadband. The economics of providing linear broadcast channels for small audiences will prove challenging, especially given pressure on commercial revenues from PVR usage and new internet-based advertising media. Niche broadcast channels will gradually be replaced by on-demand content providers, using the internet as their primary distribution platform.
- 4.6.7. Audio broadcasting will remain popular, as it retains the ability to connect in real time with the everyday lives of listeners, although DAB will replace FM/AM broadcasting as the main source of live radio. Podcasting and downloads co-exist alongside live radio.
- 4.6.8. Users will still expect there to be a reasonable degree of external regulation of content standards for conventional broadcasting – especially to protect vulnerable groups. There are likely to be mixed views about content accessed over the public internet. Some users will accept that the internet remains outside the regulatory framework, others will be increasingly confused about which content is and is not regulated.

Market structure and competition

- 4.6.9. In scenario two, the market overall will grow, but the funding mix will change. TV advertising will remain important, but gradual erosion of audience share will put pressure on margins, and broadcasters will need to find new sources of income to replace the income they are losing.

- 4.6.10. The main players will respond to the threat of competition from a multiplicity of sources by consolidating and integrating across the value chain. The different types of consolidation might include:
- Broadcasters responding to the threat of new media competition by securing content supply (perhaps through acquiring production companies) and acquiring new media rights, hence extending their market share into new media. There may also have been mergers between broadcasters, as they face tough competition for revenues;
 - Integration of platform operation and content supply - some broadcasters and producers may have sought closer alliances with the main platform operators, as they try to secure distribution, while the telcos and cable will be searching for alliances with content producers and packagers to offer bundles of services to their customers;
 - Consolidation among ISPs – who will combine service provision with content aggregation. They will sell not only the technical access to broadband (with guaranteed service quality levels) but also package and brand the content. They will use sophisticated navigational tools to help users find their way around the content that is available – and they will offer safe environments for families with children. They will also increasingly work with equipment providers to ensure that their service packages can be accessed easily over different devices, both in and outside the home.⁶
 - The emergence of new gateways. Some new media and internet players may have leveraged their brand and understanding of how the internet works, to establish powerful new content-based propositions in the emerging broadband market. Google, Yahoo and MSN are possible contenders for this sort of role.
- 4.6.11. High switching costs mean that the market is “sticky” – consumers are reluctant to change service providers once they have invested substantially in personalising the service they receive, and have signed up to proprietary systems for downloading and using content with specific devices. Competition for new customers remains intense, however.
- 4.6.12. Ownership of UK media will become more international. There may be important economies of scale and scope which can be realised by global broadcasters. Content and formats can be used across national borders, rights deals can be done on an international basis, advertising and sponsorship contracts can be extended around the world, on-demand services can be made available internationally, and news resources can be shared globally.

How credible is this scenario?

⁶ The larger content aggregators or ISPs may provide a two tier system – in their own “controlled” zones, they can offer guaranteed service levels, which support high quality streamed audio material. In the public internet area, service levels are less reliable.

- 4.6.13. Many felt that this was one of the two most credible scenarios for the future. While many pointed out that we should initially see a more open and competitive market, it was felt likely that the natural competitive response to that sort of environment would be a drive by the key players for integration and critical mass, to reduce risks.
- 4.6.14. Some residual concerns were expressed about the ability of platform operators to create market bottlenecks, and the possible emergence of new gateways. More widely, the mixed ecology of broadcast and broadband viewing portrayed by this scenario was felt by most to be the most likely outcome for the 5-10 year horizon – although the more extreme picture painted in scenario one was seen as the more likely ultimate long term destination.

4.7. Scenario Three: Extreme Fragmentation

“Variable pace of adoption of new technology, clear broadband divide between different consumer groups, very fragmented market for content, fragile market and uncertain business models”

Key features of scenario three

- Broadband and PVR take-up plateaus at around 60% of households, leading to a real and continuing digital divide;
- Portable media devices – with the exception of phones – are a high end consumer gadget, rather than a mass market product;
- On-demand access to content is very popular with affluent and younger user groups, but hardly used by others, and direct payment for content is disappointing;
- Broadcasting is skewed towards the older and less well off, and advertising revenues are hit;
- Consumption in the “on-demand” market segment is fragmented across many different content sources from all around the world;
- Funding for high quality and diverse content proves harder to secure – high costs of putting together deals and high risks mean that investors are cautious;
- Competition is fierce and companies struggle to find a successful business model.

Technology adoption

- 4.7.1. In this scenario we see a clear digital divide, with a huge split between enthusiastic early adopters (the young and affluent) and those who opt out of the new world (the older, less well off, and those who actively choose not to be part of the technology revolution).
- 4.7.2. In some homes, the world looks very like the first scenario – high rates of adoption of high speed broadband and portable devices. In other homes, though, we remain in a predominantly broadcasting-oriented world. TV broadcasts are largely, as now, received via DSat, cable or DTT. Not everyone has a PC and, where they are found, they are still used very differently from the TV screen. Mobile devices are largely used as a means of communications, rather than for receiving audiovisual content. FM/AM radio is still the preferred means of accessing live radio broadcasts.

Media consumption

- 4.7.3. Again – this scenario depicts a story of at least two different communities, with very different consumption patterns. Confident consumers in “on-demand” homes will have taken full advantage of on-demand capabilities

offered by broadband and see live TV as the exception rather than the rule. More “traditional” homes will still rely on broadcast TV and radio for their media consumption, and the on-demand world will have largely passed them by.

- 4.7.4. As a result, there will be no single mass market for broadcast or other audiovisual content. The broadcast channels will have a sharply reduced reach in “on-demand” homes – and will therefore lose much of their potential for promoting new content to those consumers. In “on-demand” homes, consumption will be further fragmented, with consumer choices spread across a very wide range of content.
- 4.7.5. Alongside these developments, there will be a similar fragmentation of views about what are acceptable standards for the content that is made available. Traditional broadcast consumers will expect a reasonable level of external regulation of the content that they access via their TV sets. In contrast, those in on-demand homes will wish to make decisions for themselves about which content they choose to watch – and will resent external regulation.

Content and services

- 4.7.6. Not only is there a digital divide, but there is a fundamental disruption of the economics of the national content production and supply market – it will be increasingly difficult for the players involved to find ways of effectively financing and then marketing major new content, given the fragmentation of distribution and ultimate consumption. Where funding is available, it will be focused on making programmes for more affluent audiences, who are prepared to pay for on-demand services, or who are attractive to sponsors. A “cultural deficit” may emerge for those who remain in broadcast-only homes.
- 4.7.7. There will be a greater reliance on US content more generally, and lower cost, lowest common denominator material in broadcast homes. The competition for quality in broadcast content, which has long characterised the UK market, will be threatened.

Market structure and competition

- 4.7.8. This scenario is characterised by uncertainty and continuing upheaval in the market. Conventional TV advertiser-financed funding models will break down, subscription TV may have reached its limit, and most consumers will be unwilling to pay high fees for on-demand content. Broadcasters will be left with a residual market of the older and less well off, while those targeting on-demand consumers face the challenge of reaching sufficient users to make money in an environment which contains many thousands of content suppliers from all round the world. Traditional broadcast channels will lose their effectiveness in providing exposure for new content, and marketing costs (to launch new programmes to broadband consumers) will be high relative to potential income.
- 4.7.9. Against this background, the sustainability of large scale UK originated content for UK consumption will be threatened. Instead, successful content

providers will be those who either find very specialist niche markets, or who alternatively position their content for international distribution and consumption, where the business economics (a much larger potential audience, but very little extra cost) look more favourable.

How credible is this scenario?

- 4.7.10. The main elements of this scenario were felt by some interviewees to represent a serious and credible risk as we move into a more fragmented world. We should not take it for granted that there will continue to be either the same level of consumer interest in broadcast content as there has been over the past 50 years, or the same level of funding for content as we have seen recently. The uncertainty about business models in the new on-demand world, coupled with the possibility that the market might be divided between the less well-off and those able to afford the digital revolution, underline the potential risks. On the other hand, the more optimistic among the interviewees pointed to the opportunities presented by a wider world market, suggesting that access to international markets could offset any funding gap that might emerge in the UK – with possible consequences for the nature of the content produced, however.

4.8. Scenario Four: Stagnation

"Adoption of new technology stalls, consumers remain attached to broadcast services, relatively closed market"

Key features of scenario four

- Broadband take-up (2Mb/s and above) and PVRs reach less than half of households;
- Little use of portable TV devices – mobile phones mostly used for communications;
- Internet little used for access to high quality on-demand audio visual content;
- TV advertising model is resilient – still a good way of reaching mass audiences – but broadcasters "play safe" with their programme investment, resulting in little innovation in content;
- Established broadcast brands remain powerful.

Technology adoption

4.8.1. In this scenario, new technology adoption stalls, as a consequence of a mix of consumer indifference, uncertainty, and the strategies of existing players in the broadcasting market. Prices for broadband have reached their floor, and there is little sign that content over broadband is a "killer application" for those who have not yet acquired a broadband connection. Broadband users opt for low prices rather than high capacity. Broadcasters, not wishing to cannibalise existing audiences and revenues, have not actively pursued new media opportunities – and have managed to restrict use of their content by new entrants. PVR usage remains largely about time shifting programmes on the day they are transmitted, and the effect of time-shifting on advertising is less significant than many have predicted. We are some way from full convergence in the home (the technology is seen as being difficult to use and unreliable) and mobile devices are largely still used as a means of communications.

Media consumption

- 4.8.2. Most consumers will still prefer to receive their audiovisual entertainment from more conventional linear channels. They will lack the confidence and the time to make active choices of content from on-demand systems, and – in any event – home media centres have proved difficult to install and use – hence sustaining the separation of content to the PC and content to the TV. Most broadband connections do not support high quality video downloads. Managed IPTV systems will have kept users within their walled gardens.
- 4.8.3. The main broadcasters will also use careful windowing strategies both to sustain the value of the broadcast window, and to exploit residual value

through later on-demand release. Catch-up services will be used to a limited extent.

- 4.8.4. Audio broadcasting will still be popular, especially FM/AM stations. DAB will grow steadily, but we are a long way from being able to switch off the analogue services.
- 4.8.5. Users will still expect there to be a strong degree of external regulation of content standards for conventional broadcasting – especially to protect vulnerable groups. These expectations may extend to the public internet – with increasing concerns about child protection and access to illegal material – although the marginal nature of the internet may help address such concerns.

Content and services

- 4.8.6. This market in most respects looks very much like that of today – with a range of different types of content available on the main channels, supplemented by niche audience cable and satellite channels. TV advertising will grow slowly overall, but the main networks will take a smaller share over time. This will be reflected in strict control over programme budgets. A big risk is that lack of effective competition from new media will mean less of an impetus to innovation and originality in programming – not only will new media developments have stalled (and new funding sources have failed to materialise) but the traditional broadcasting sector will also stagnate in terms of programme ideas and content.
- 4.8.7. These developments will have a knock-on effect on the UK content production sector. Its main customers still want conventional programming, made for ever tighter budgets. Meanwhile there will be a growing international market for new types of content driven by overseas growth in broadband and new media applications. In the absence of an innovative home market for this sort of material, which might help provide a sound foundation for exports, UK producers risk losing out.

Market structure and competition

- 4.8.8. This scenario, like the second, is characterised by a concentrated, integrated media market, but is dominated by broadcasters and broadcasting platforms.
- 4.8.9. Entry barriers will remain high – broadband will not provide an effective substitute for broadcast services, existing broadcasters will control vital content rights and, through continued programme investment, make it harder for new entrants to secure market share within a reasonable period. The balance of power between broadcasters and producers will remain skewed in favour of the large broadcasters.
- 4.8.10. The market overall will stagnate. TV advertising sees little overall growth, and gradual erosion of audience share will put pressure on margins at the main networks.

How credible is scenario four?

4.8.11. Very few participants in this study saw this scenario as being a likely outcome over the 5–10 year horizon. I have included it in this report, however, as I think it is useful to think about the things which could go wrong in the UK broadcasting sector, and might in turn have an adverse effect on the UK's international competitive position – both in the creative sector and more widely as a modern broadband-capable economy. A milder version of this scenario – in which UK content providers are unduly focused on the needs of conventional broadcasters – rather than experimenting with new formats and approaches to content – could well be a risk. The way in which the new media market develops in the UK will be influenced significantly by the interests of the main broadcasters – we need to understand how much those interests are aligned with the general public interest. An unhelpful regulatory framework might hinder the development of new media.

4.9. The four scenarios – final observations

4.9.1. As emphasised earlier, these four scenarios are not meant as predictions of actual outcomes, but rather as tools for thinking about possible developments in the broadcasting and electronic media world, and their implications for regulation and policy. In the next chapter we will turn to those implications in more detail, but it is already clear that there are several common themes emerging from the analysis so far – and also several key uncertainties.

4.9.2. The common themes include:

- Convergence of pipes and electronic consumer equipment, which mean that content will be consumed across a range of devices, including the TV screen, the PC and mobile devices, with the potential for integrated home media centres and a blurring of the demarcation between broadcasting and on-demand content;
- The role of broadband and low cost storage in moving us from a broadcast towards an on-demand world - with three of the four scenarios including this to some degree;
- The broadening of consumers' access to content from a wide range of potential suppliers, from all around the world – and in turn the opening of new markets for UK content suppliers;
- Changing funding models, and some real doubts about the sustainability in the long term of conventional TV advertising as a major source of funding for high quality content;
- Changing attitudes to content standards regulation – and changing opportunities to allow users more control over the content they decide to consume.

4.9.3. The key uncertainties include:

- The speed and extent of the above developments – will the new technologies become ubiquitous (as in scenario one) or will we see a significant digital/broadband divide (as in scenario three)? Will infrastructure providers be prepared to make the investment needed to support the world envisaged in the “transformation” scenario?
- The nature of consumption in the new world – a fundamental change (as in scenario one) or a mix of broadcast and on-demand? - and the business models that flow from those changes;
- The extent to which content aggregation and packaging – in whatever form – will remain valued by consumers;
- The degree to which fragmentation will undermine the size and stability of funding available for content produced in the UK (as in scenario three);
- The extent to which we will see an open and competitive market or a more concentrated market – whether populated by old or new players (as in scenarios two and four);
- The possibility that, through a combination of circumstances, the UK might slip way behind in the new media broadband world (as in scenario four);
- The attitudes of consumers to content standards and regulation – an acceptance that individuals should take on more responsibility for their choices and for their children’s choices, or a demand for continuing external regulation?

5. Policy and regulatory challenges

5.1. Introduction

- 5.1.1. In this chapter, I examine the main policy and regulatory challenges which are likely to arise over the next 5-10 years. The analysis presented in this report suggests that we are entering a period of even more rapid change than seen over the past 10 years. Although many industry experts and observers are agreed on the overall direction of travel, there is still significant uncertainty about the impact of that change on market structures, on the main players and on consumers. Can the scenarios described in this report help us find our way through this complex pattern of trends and uncertainties?
- 5.1.2. Against this background, two broad conclusions can be drawn:
- It is important for policy makers and regulators to be as prepared as possible for the changes ahead – through a good understanding of the market and how it is developing, and through a clear strategy for achieving well-defined public policy goals;
 - Within that strategic framework, the approach to regulation may have to change so that it can remain relevant, flexible, responsive and effective in rapidly changing circumstances.
- 5.1.3. In particular, we are moving from the highly regulated world of the past 50 years, to one in which it will be in the public interest to have much less regulation. From a world in which policy makers and regulators have carefully designed and taken on a large responsibility for managing a “delicate broadcasting ecology” to one in which consumers will be better off if much of the market is left alone to deliver choice, innovation and creativity as an outcome of the competitive process in a much less constrained and more open environment. The changes described in this report should, on the whole, be seen as a huge opportunity rather than a threat, and a new approach to regulation will be needed to ensure that the full potential of the new world is realised.
- 5.1.4. I will return to these themes at the end of this chapter. First, though, I look at the challenges ahead under four main headings:
- Competition issues;
 - Public interest objectives for content;
 - Content standards regulation;
 - Wider policy issues.
- 5.1.5. Together, these four areas make up most of what we have traditionally thought to be the main ground covered by broadcasting policy and regulation. I deliberately start with competition issues, to emphasise what I see should be a change in emphasis for broadcasting policy and regulation

over the next 10 years – getting the market to work effectively, rather than starting from the need to intervene to correct market failures.

5.2. Competition and market structure

Context so far

- 5.2.1. The first challenge for the new world referred to above is to ensure we have effective competition in the market. The potential consumer benefits are huge – in a fast changing and dynamic market, with open entry, we are more likely to see innovation and greater choice than in a market which is difficult to enter and is heavily influenced by public policy interventions. Indeed, development of competition in the UK broadcasting sector was heavily constrained for many years by public policy decisions which limited the number of TV and radio licences available. With the onset first of satellite and cable networks for TV and, more recently, DAB for radio, and now the availability of broadband delivery of high quality content on-demand, the prospects for a more open and competitive market seem much brighter.
- 5.2.2. The focus of broadcasting-related competition concerns⁷ have been fourfold so far:
- Rights issues, including exclusive contracts for premium content and the terms on which such content is supplied to third parties; purchase of programmes by broadcasters from independent producers; and especially new media rights;
 - Control of gateways to the consumer, such as conditional access systems (and other bottlenecks in the broadcasting value chain);
 - Impact of public broadcasters on competition.
 - Vertical integration – commonplace in the media sector - is an added complexity, leading to the possibility that an operator could lever any market power it has in one part of the value chain into adjacent downstream or upstream activities.
- 5.2.3. Most competition issues so far in the UK have been dealt with under the general competition law framework, but there is also a small number of *ex ante* rules, originally issued by the ITC and Oftel and subsequently updated by Ofcom, which cover conditional access systems, EPGs, cross promotion and a few other issues. The designated PSBs are also obliged to issue codes of practice for their dealings with independent producers, to address concerns that they might be able to use their buying power to impose unfair contracts on their suppliers.

⁷Currently, Ofcom has concurrent powers with the OFT for dealing with broadcasting competition matters, across the whole market (including the BBC). As well as powers under the Competition Act, Ofcom can also use Section 316 of the Communications Act to deal with potential competition abuses by its commercial broadcasting licensees. In effect this gives it scope to use *ex ante* as well as *ex post* powers to ensure effective competition in the broadcasting market.

Anticipating change

- 5.2.4. The good news about some of the scenarios is that they suggest a more open and competitive market for the future, which in turn should mean less concern about competition regulation, and especially the need for any *ex ante* regulations. The transformation and extreme fragmentation scenarios, in their different ways, suggest that we could see a future with aggressive competition between different platforms, with many content suppliers, with new content aggregators, and with new distribution technologies and media.
- 5.2.5. On the other hand, there may still be some risks to competition. The stagnation and consolidation scenarios paint a different picture – one in which there is only a small number of powerful players, possibly with high degrees of both horizontal and vertical integration. New issues might emerge:
- The entry into the broadcasting or content provision markets of major players from adjacent sectors, who may be able to lever market power from one market into another – for example the telecommunications network operators, or powerful internet-based companies;
 - New platforms and software applications might provide the opportunity for companies to establish powerful gateways, especially if – as in the current market – there is a high level of vertical integration in the media sector;
 - Access to new media rights will be a critical issue for potential new service providers and platforms, and was subject to a recent Ofcom review;
 - There may be high switching costs faced by consumers who would otherwise be willing to move from one supplier to another – this “stickiness” in the market could reduce the effectiveness of competition;
 - Some of the new technologies are highly dependent on suitable spectrum being made available. Overall demand for spectrum is almost certain to increase, driven by a wider range of mobile TV and communications applications. Policy for the allocation of spectrum, including that released on switchover, will have a key influence on the shape of the market;
 - The possible impact of the BBC and its licence fee funded and commercial activities on the rest of the market could also become a more significant concern – especially as the BBC, to remain relevant in the broadband world, will need to alter the scope of its publicly-funded activities to include new on-demand distribution systems and possibly other new services.
- 5.2.6. Above all, the audiovisual market will be much “messier”, more complex, than it is at present. Market definitions will be more fluid, monopoly positions may be very temporary, significant countervailing power may

exist, and the complexities of so-called “two-sided markets” will need to be taken into account by future regulators.

Options for the future

- 5.2.7. The temptation for any policy maker and regulator is to anticipate potential problems and then to try to pre-empt their occurrence. Indeed, this in many ways was the approach taken with the *ex ante* regulation of conditional access systems for the delivery of satellite broadcast services – the European Commission has required fair, reasonable and non-discriminatory access to such systems, without the need for a market power test, largely to prevent an anticipated build up of and possible abuse of market power through control of what was seen as likely to become a vital new bottleneck.⁸
- 5.2.8. However, this will not necessarily be a good model going forward. The scenarios analysis for this report demonstrates that it is very difficult to be certain how the world will turn out in 5 or 10 years’ time. Broadcasters and other media companies are making large investments based on guesses (or “bets”) about the future. Changes in technology are creating new markets and destroying old ones. They are challenging the conventional view of markets and how they should be defined. Consumers are switching between different media and content providers in ways which are very difficult to track now, let alone predict for the future.
- 5.2.9. In this sort of environment, well intended but misguided regulation can be very costly. For example, if regulation tries to anticipate new bottlenecks and puts in place a framework to control them, it can affect the incentives to invest in the first place – existing players might worry that they may not be able to make a reasonable return on a potentially risky investment, and new entrants may have less incentive to find entirely new ways of serving customers. Regulation based on market definitions which are too narrowly drawn might end up by over-regulating some companies, and allowing free rein to others in adjacent markets – so distorting consumer and investment decisions. Regulation which is over-eager to address what appear to be monopoly profits could reduce the incentive to invest by companies which depend on carving out a temporary monopoly to make a return on their investment – before the next innovation comes along and undermines their business.
- 5.2.10. So, while tough and clear application of competition law is important to protect consumers where there are real concerns, *ex ante* regulation to deal with anticipated concerns should be undertaken only after very careful consideration and extensive consultation. Rather, attention should be focused on helping the process of competition work more effectively. For example, by:
- Securing better consumer information;
 - Measures to reduce consumer switching costs;

⁸ EU Access Directive: Directive 2002/19/EC

- Removing entry barriers (including spectrum).
- 5.2.11. The exception to this is how the BBC should be dealt with. The size of the BBC, its access to guaranteed public funding on a large scale, and the potential effect it might have on private investment decisions, suggest that it should be subject to a clear and effective *ex ante* competition framework. The Government's White Paper proposed that market impact assessments (MIAs) will be carried out for all new BBC services, by Ofcom, which should add a powerful new transparency and authority to such assessments, and will help reassure the commercial marketplace that these issues are being properly considered. The new BBC fair trading approach and framework, which is the responsibility of the BBC Trust, will also need to have sufficient force. The effectiveness of both the MIA and fair trading frameworks will need to be monitored carefully over the next few years to ensure that they are working, and that the BBC is not causing disproportionate harm to the private sector in pursuit of its public service goals.
- 5.2.12. Finally, as noted, spectrum policy in particular could be the key to more effective competition in future. There may be many vested interests arguing against the application of a more liberal market-based approach to spectrum allocation. But the key to more competitive markets is almost certainly the availability of new spectrum which can be used either by incumbents or by completely new players to offer innovative new services. Regulators should not be given the task of selecting the best use of the spectrum in such circumstances, neither should it be their role to protect the market position of incumbents. Spectrum allocation should be left to a market-based process, and unused spectrum should be released to the market as quickly as is practicable. Any departures from such an approach should be very clearly justified in terms of a significant public policy gain.
- 5.2.13. Against this background, I suggest that the overall challenge for competition regulation in broadcasting and electronic media markets is fourfold:
- Making sure regulation doesn't get in the way of the new markets and their development, by over-regulating, protecting incumbents, or disincentivising investment;
 - Promoting the process of competition, for example by:
 - Securing better consumer information
 - Measures to reduce switching costs
 - Removing entry barriers (including spectrum);
 - Taking a converged approach across the communications sector, including, for example, spectrum policy and effective regulation of remaining telecommunications network bottlenecks;
 - Effective enforcement of competition policy, and policing of any remaining *ex ante* rules (for example those governing access to technical platforms, or the BBC).

5.3. Public interest objectives for content

Context so far

5.3.1. The second challenge for policy (and its associated regulation) is to develop a new model for the continued provision on an appropriate scale, and in a suitable form, of public interest content. As argued in the Ofcom review of Public Service Broadcasting, and in the Government's White Paper on the future of the BBC, there is still a strong public interest rationale for intervention in broadcasting markets, even in a fully digital world.⁹ The aim of such intervention is to ensure the provision to everyone of programming or content which is valued by society, but which the market, left to itself, would not provide or would under-provide. As the PSB review made clear:

- Many of the old "consumer market failures" are steadily being addressed by developments in broadcasting markets, which end spectrum scarcity, bring more choice to consumers, and – via subscription and pay per view – ensure there is now scope for consumers to express their preferences clearly through the marketplace;
- But even a well functioning market will not meet all our needs as citizens – public intervention to deliver social needs will still be justified – focusing on programming which meets clear public purposes and has identifiable PSB values.

5.3.2. Ofcom proposed some enduring purposes and values for PSB, many of which were also adopted by the Government's BBC White Paper.

5.3.3. For much of the past 50 years, a rich diversity of programming has been provided in UK television and radio via a mixed system of publicly funded and commercial broadcasters, with the BBC playing a lead role, but with the main commercial broadcasters also having some clear public service (non-commercial) obligations. Particularly in television, the system has encouraged what Ofcom called "competition for quality" – with the BBC, a not-for profit Channel 4 and the main commercial networks all competing not just for audiences, but also for programming talent and ideas across a wide range of genres, including news, current affairs, children's and factual programming, as well as in more obviously popular and commercial programming areas.

5.3.4. Ofcom, however, noted that the current and future changes in the market mean that the old PSB model is breaking down, and needs to be replaced if we are to continue to enjoy the successful delivery of PSB content in future. The scenario analysis in this report underlines even more starkly the threats to the system, and the need for change.

Anticipating change

5.3.5. The challenges posed to policy and regulation across all four scenarios are:

- The availability of new high bandwidth distribution platforms brings to an end the age of spectrum scarcity, which has so far helped to underpin key aspects of our public service broadcasting system;

⁹ Competition for Quality, Review of Public Service Broadcasting, Ofcom, February 2005; A Public Service for All, the BBC in the Digital Age, DCMS, March 2006.

- The provision of further choice and competition, as content from new entrants and from around the world becomes available via digital TV, DAB or broadband, will place further pressure on the profitability of UK broadcasters, and will accelerate the demise of the old commercial PSB contract;
 - Consumer control – which means that it will be more difficult to persuade people to consume content they don't obviously value themselves as individuals – which could undermine the effectiveness of socially desirable programming. There is little point in funding large amounts of PSB, if those for whom it is intended are not prepared to watch or listen to it.
- 5.3.6. Some time before the completion of switchover, ITV and Five will be nearing the point at which it no longer makes sense for them to fund their remaining expensive PSB obligations. Before that point, it will be important to consider again whether it is in the public interest for the remaining PSB obligations to be maintained until the end of the current licences and beyond and, if so, how they will be funded. The public value delivered will arguably be minimal, while there may be a substantial cost as ITV, in particular, is prevented from competing as effectively as it might with other, less restricted channels. This could have a significant knock-on effect on the UK production sector.
- 5.3.7. Channel 4 similarly faces some tough challenges, even though it appears to be highly profitable now. Its PSB model depends on the cross-subsidisation of PSB content by advertising sold around commercially attractive content. It is relatively small in scale, which may place it at a disadvantage compared with other UK and international rivals. If – as suggested in several of the scenarios – the overall outlook for the TV advertising market is highly uncertain, then Channel 4's ability to make this model work will come under threat. In those circumstances, there are really only two choices – relax the PSB remit, to allow the channel to compete more effectively for audiences and revenues, or provide it with access to some sort of public support to offset declining commercial incomes.
- 5.3.8. The BBC also faces continuing threats. If its audiences drift away to alternative content providers or media, public resistance to the licence fee will mount. Commercial opposition to the licence fee will rise as the BBC's impact hits harder in a more competitive market, where every viewer and every pound of revenue counts.
- 5.3.9. There are also some specific risks associated with one of more of the scenarios discussed in this report.
- Public indifference to PSB*
- 5.3.10. In those scenarios which incorporate a greater and faster move to on-demand consumption of content it may become increasingly difficult to attract viewers and listeners to public interest content. A challenge for providers will be getting people engaged in content that they might not immediately recognise as being of interest to them – finding ways of re-inventing the impact of mixed schedules in a world in which users are free to switch channels and download their own preferred content.

Plurality

- 5.3.11. In the “consolidation” scenario, there is a specific risk to plurality - the commercial sector is highly concentrated, with a possibly high level of engagement in the UK market by US and other international operators. This could be a cause for concern if not counterbalanced by strong PSB provision elsewhere, or by effective rules on the impartiality and accuracy of news and current affairs content. In the “stagnation” scenario, similar concerns about the protection of plurality might emerge – the market in this scenario is organised around a small number of conventional broadcasters.

Risk to high quality UK content

- 5.3.12. In the “extreme fragmentation” scenario, there is a significant threat not only to PSB or public interest content, but to investment in high production value programming more generally. Fragmentation of audiences is reflected in fragmentation of funding. Funding is most likely to flow to content demanded by more affluent audiences, often in the form of pay services – perhaps leaving the tastes of a large minority less well-served.¹⁰ The stagnation scenario could pose similar issues over the longer term.

Information deficit

- 5.3.13. In the extreme fragmentation scenario, there arises a potentially much more marked “digital divide” between those who can and do participate in the broadband world, and those who for various reasons are excluded. In most other scenarios, this will still be a residual problem. The challenges here are twofold: to ensure enough high quality content is available to those who rely on conventional broadcasting, while also encouraging and helping them to move into the broadband world – for example, via media literacy initiatives, promotional activity, and other incentives.

- 5.3.14. More widely, there may be a change in public expectations of the meaning of “public interest” broadcasting and content. We may see demands for a much more democratic interpretation of the public interest – a demand for public access to media, for support for communities of interest, and for user generated content. There may be more interest in services which help guide users through the complicated commercial market place, than those which add to the available content.

Options for the future

- 5.3.15. What are the policy implications and challenges associated with these developments? Some implications are common to all the scenarios:

The need for PSB

- 5.3.16. First, for the next ten years at least, and probably beyond, investment in PSB – or what is perhaps better described as public interest content - is still needed. As Ofcom argued, there remains a strong rationale for intervention in the market to provide clearly distinctive public interest content and services. While it is important to allow markets to work as effectively as possible on behalf of consumers (which means removing the remaining less valued and increasingly irrelevant obligations from the mainstream commercial sector), it is also important to have proper funding and effective delivery of content that would not be delivered by the market. PSB providers not only provide a direct remedy for market failures, but also set standards

¹⁰ Although, even content initially released via a pay window may eventually be released on a free to air service, hence achieving wider distribution.

for the content that is delivered by commercial providers. However, questions should be asked about the scale and cope of PSB beyond switchover (see below).

Explicit support or funding

- 5.3.17. Second, to a greater or lesser degree, all scenarios lead towards the end of the current model of implicit subsidies for PSB content on commercial channels. New ways of funding or supporting such content will be needed, either in addition to or instead of the licence fee.

Reinventing PSB

- 5.3.18. Third, PSB cannot stand still. It needs to be reinvented and reshaped for the broadband, on-demand world, in which consumers are in control. The very nature of public interest intervention may need to change to reflect the new, more democratic opportunities presented by the internet. In future, for example, we might wish to place more emphasis on creating opportunities for individuals or communities to create and share their own content, or to air and discuss their views or common interests. This would be a world in which many have the chance of actively participating in the new media, rather than just passively absorbing content provided by a remote broadcaster.
- 5.3.19. These developments are being recognised by the BBC and by others. The BBC's on-demand proposals, for example, demonstrate a recognition of the challenge ahead. PSB content needs to be made available in a form demanded by consumers, and new media offer the chance of extending participation in many different ways. It is hard to see why the BBC should be asked to remain as a provider only of linear channels, when the rest of the sector, prompted by consumer demand, will increasingly be moving into the on-demand world. PSB providers may be able to shape a new role for themselves as intelligent and trusted guides to the broadband world, especially for less confident users – which could play a part in avoiding some of the less desirable scenario outcomes (fragmentation or stagnation, for example).
- 5.3.20. But there will, however, always be the risk that established broadcasters place more emphasis on protecting their existing services than experimenting with new approaches. The established players may not be the source of the most innovative and creative new ideas about how content can and should change to fit the needs of the broadband world. They may, because it is often in their interest to protect their existing services, be slower to innovate than completely new market entrants. For this reason, Ofcom proposed the idea of the Public Service Publisher (PSP), which would introduce – through a competitive tender process – a completely new approach to the provision of public interest content, expressly designed for the broadband rather than the broadcast world. A successful PSP would not only help achieve public interest content objectives, but might also act as a stimulus to the UK creative sector to engage wholeheartedly with the opportunities presented by new media production, and hence strengthen the UK's international competitive position in this field.
- 5.3.21. There are also significant differences between the various scenarios.

Scale of intervention

- 5.3.22. First, the extent to which we need to intervene in the market may vary. At some stage, especially in scenarios one and two, there may be a real opportunity to spend less on PSB than we do now, and we will need to carry out the analysis well in advance of that time to ensure we get the decision right. We might also wish to consider how well the money is spent and on what things. For example, funding of expensive scheduled channels may not be appropriate in an on-demand world – the BBC and other providers of public interest content might well be able to focus a reduced investment on a lower volume of higher quality programming, which is then made available on-demand, rather than on scheduled services. Although new types of content may be needed, old types could be dropped if adequately provided by the market. Many commentators have suggested that a "cut-down" version of public interest content in future might look very different from today's multi-genre approach.

Scope of intervention

- 5.3.23. We will need to decide between a view of public interest content which incorporates all genres, as long as they are adding public value, (as promoted by the BBC, and supported to a degree by Ofcom's PSB review), and one which suggests a tighter focus on only those genres which will clearly not be provided by the commercial market – for example, some commentators have suggested constraining PSB to some types of current affairs, serious and high cost documentaries and educational programming, minority interest content and some dramas. Arguably, scenarios one and two might suggest the latter more focused approach, while scenarios three and four would call for a more comprehensive interpretation of the public interest. Alternatively, given the likely explosion in the availability of all types of content over broadband services, the main public interest objective might change from today's focus on investing in content, to helping everyone have access to, and understand how to use, the content which is already available. In the fully digital world, the argument runs, there is no shortage of information, analysis, opinion and coverage of news and events. The problem will be that not everyone will have access to this huge diversity of content. Even if we do not accept the most extreme version of this argument, there could still be a powerful case for a shift in the aims of government intervention – changing the balance of funding so that less goes on creating new content, and more goes to securing universal access to the infrastructure and devices needed to take advantage of the new broadband world. The challenge for the future is to assess these different options in a rational and rigorous way.

Process of intervention

- 5.3.24. The process of funding and securing public interest content also needs to be addressed – both from an efficiency/effectiveness perspective, and because of the potential importance of plurality of provision.
- 5.3.25. On efficiency/effectiveness grounds, the broad choice is between a concentration of public interest investment via a single large institution like the BBC, or wider dispersion of funding and provision. Ofcom suggested that a system of "contestability" for public funding could be introduced and tested for its effectiveness. If funding for public interest content is allocated periodically on a contestable basis, we may be able to secure a better outcome for any given amount of public funding than under the current and sometimes opaque system whereby the licence fee automatically goes to

the BBC. In scenario one, where consumers are used to seeking content from a multiplicity of on-demand providers, it is not obvious that the best way of supporting public interest content is via a single provider. A wider distribution of funding, perhaps via a competitive process, might yield better results. In contrast, where the commercial competition is provided by only a few powerful entities, a strong public interest provider may be preferable.

- 5.3.26. The related issue of securing plurality yields slightly different conclusions. Measures to secure plurality are likely to be more important in scenarios two and four (which are characterised by only a small number of main content providers) than in scenarios one and three (in which there will be many different sources of content and opinion). Some argue that in future it will be enough to rely on just the BBC – better to focus public funding on one institution, effectively managed and regulated, than dispersing it around many. To those who argue that the BBC has benefited from competition for the provision of public interest content in the past, they point out that the BBC in the new world will face competition from many more providers of a wide range of content – for example, Discovery, National Geographic – which should be enough to address fears that the organisation would become complacent.
- 5.3.27. However, there are also risks in relying on just the BBC, whatever the scenario. Most important is the loss of plurality of public service news and current affairs. There is a risk in having just one publicly accountable provider of impartial news and current affairs – a risk to independence as well as to quality and diversity. But there are also other potential disadvantages. Competition for the BBC may exist in some genres but not all, and in many cases competition will consist of the provision of US-funded content, not local UK productions. There is a risk to creativity, if all the commissioning of publicly funded content is channelled through one institution. There is risk to effective regulation – if the BBC is the only public service provider, those in charge of holding the BBC to account will have little useful information with which to inform their assessment and to provide a benchmark for their judgements. Finally, there would be a risk to future public support for PSB if it were seen to be solely there to secure the long term future of a single organisation, however well run.
- 5.3.28. For all these reasons, it is likely to be desirable, if at all feasible, to retain some plurality of provision in PSB in future. The Ofcom PSB Review set out options for securing plurality, including an important role for Channel 4, and a new “public service publisher” (PSP). Securing effective plurality, and how it should be funded requires significant further debate however, which should be undertaken well before changes need to be made to the system. A key issue will be the role of Channel 4, and the extent to which it needs or should be given further public support, should its existing commercial model come under pressure in future. Access to public funding will bring costs to Channel 4 as well as potential benefits, potentially significantly changing - for the worse – its culture, freedoms, and incentives. These should be fully explored before any decision is taken.

5.4. Content standards regulation

Context so far

- 5.4.1. The third challenge is to overhaul the system of content standards regulation, consistent with the overall goal of lighter and simpler regulation. In the UK there is a tried and tested framework for regulating content standards on broadcast television and radio services. Rules covering harmful and offensive material, fairness and privacy, and the accuracy and impartiality of news and current affairs, are set out in the Ofcom code. These are monitored and enforced by Ofcom, through the broadcast licensing regime, which allows sanctions to be imposed by Ofcom on any broadcaster in breach of the codes, with the threat of financial penalties and, ultimately, revocation of licence. There are rules covering the amount of and placement of advertising, and the separation of advertising from editorial content. Advertising content is regulated under a co-regulatory scheme with the Advertising Standards Authority. Partly as a result of these rules, UK broadcasting (both TV and radio) has a high public reputation for trustworthiness and honesty in its presentation of news and comment, and TV is widely acknowledged to provide a safe environment for younger and family viewing before the “watershed” of 9 pm.
- 5.4.2. Should and can this sort of framework be extended into the new media/broadband world identified by the scenario analysis in this report? Before attempting to answer this question, it is worth being clear about why the current rules exist, and whether a similar rationale might still exist in future.
- 5.4.3. There are a number of reasons why content standards on broadcast TV and radio are regulated in the way they are today:
- First, television and – to a lesser degree – radio, are both thought to be powerful and influential media, with the capacity to affect public behaviour and opinion, and to cause significant harm and offence if unchecked, as well as significant good. Their effect on vulnerable groups, such as children, has been of special concern;
 - Second, for much of their history a limit to the amount of spectrum made available to broadcasting meant that a relatively small number of broadcasters was capable of exercising that influence – hence the perceived desirability of ensuring that their news, current affairs and factual programming met certain standards of impartiality, fairness and accuracy;
 - Third, television and radio are pervasive, “push” services, which transmit scheduled content into our homes, and over which we have little direct control – other than to switch off or over;
 - Fourth, to an extent it was assumed that people needed protection because they would not have sufficient information or would be unable to look after themselves, – for example, to distinguish between commercial and editorial content, to work out which programmes to switch off or to avoid – or because the market outcome would be undesirable – too much advertising, for example.

5.4.4. Taken together, these factors underpin the rationale for today's regulatory system. It could, however, only have lasted if supported by a general public and political consensus which, to an extent, still remains – just. Surveys show that the public generally expects its main broadcast networks to meet certain accepted standards, but that there are subtle differences in expectations which vary from channel to channel. BBC One and ITV are expected to observe the tightest standards, Channel 4, in contrast, is understood to operate closer to the margins of the rules – and, indeed, its core audience expects it to do so. The overall framework, interpreted largely sensibly by regulators, has allowed the various licensees enough flexibility to adjust to changing consumer expectations over time, and has also arguably served to protect broadcasters from a possible backlash which might have otherwise resulted in the absence of any established guidelines about what is and is not acceptable.

Anticipating change

- 5.4.5. In all of the four scenarios explored in this report, one of the above reasons for standards regulation disappears – that of spectrum scarcity. Even in the slow growth, broadcast-led scenario, we expect every household to be in a multi-channel world after switchover, and many will have PVRs. So, broadcasters will no longer necessarily hold such concentrated power over who has access to the airwaves, and viewers and listeners will increasingly be able to exercise more control over their consumption of content.
- 5.4.6. For the other three scenarios, the picture is even starker. Adding broadband-delivered content into the equation means that broadcast channels are no longer the only or even main source of entertainment and information. Their potential power and influence seems likely to be much less than in the old 3 or 4 channel days. Many new suppliers of content will enter the market, and most of these will be new, or from markets which have hitherto been unregulated (for example print media). The emergence of on-demand and interactivity transforms the relationship between the consumer and the content provider – we are in a “pull” rather than “push” world, with individuals having much more control over what and when they watch or listen to something. Technical devices increasingly mean that individual users can filter and block content they would prefer not to access, or which they wish to prevent their children from accessing.
- 5.4.7. While one of our scenarios suggested non-linear or on-demand content would be a relatively marginal complement to continuing broadcast services, the other three – and the weight of our experts' expectations – suggest a much richer and more differentiated market, in which the boundaries between linear and non-linear content become hard to detect, and in which there are many thousands of content providers on the internet – often with a substantial amount of user-generated content.
- 5.4.8. Against this background, it is possible to imagine some point in the future in which standards regulation – other than as enforced through the law of the land – becomes irrelevant and unnecessary. The rationale for its existence will have disappeared:
- Broadcasting will no longer be any more or less influential than any other communications medium;

- There will be a multiplicity of different suppliers – allowing each of them to reflect its own lively and particular range of different views and opinions;
- Consumers will be in control and, given improved information and tools and a much better understanding of media issues (media literacy), be able to exercise their own individual choices about what to consume;
- Content providers may find it in their interest to adopt self-regulation, or to differentiate their services according to differing consumer expectations about the nature of the content they want to select – it is plausible that it will become a competitive advantage for some content providers to offer “family friendly” viewing, just as others will attract customers by offering cutting edge services at the boundaries of taste and decency.

5.4.9. Even if continuing intervention to secure certain standards were desirable in the long run, the advent of broadband and the internet increases the practical challenge of finding effective means of so doing:

- There will be many thousands of content providers – with individual internet users posting audiovisual content alongside more established professional companies – very different from the numbers covered by the current licensing regime;
- Content will be available from outside the UK and EU, making enforcement difficult;
- There will be vastly different business models and approaches to advertising around content – making conventional approaches to advertising regulation either irrelevant or very restrictive.

5.4.10. The nature of the internet is that intervention – if it is to work – will need to become increasingly intrusive. There is also a transitional risk that – to meet the need to be seen to be doing something – regulation is either increasingly focused on those it can still affect (the traditional broadcasters) while allowing many other content suppliers to escape attention, or is applied so widely that it hinders the development of innovative content propositions from the many possible new suppliers who could access the market.

Options for the future

5.4.11. Common sense, however, tells us that we are not ready yet to forego all standards regulation. Public expectations, although changing, are probably still supportive of some action in this area. The scenario analysis, moreover, suggests that in some plausible versions of the future, conventional broadcasting may remain sufficiently important and well-funded to warrant and to sustain special treatment for some time to come. The aim, therefore, should be to devise a practical and workable framework which can be adapted over time to the changing market and evolving public expectations. It should accommodate public concerns about content standards – not just

for broadcast services but possibly also for internet delivered content – while recognising that:

- Consensus about what those standards should be is beginning to break down – as many are just as concerned with securing individual freedom of choice and expression as about protecting people from undesirable content;
- It is increasingly difficult, in practice, to apply conventional forms of standards regulation to the new media world, as portrayed in our scenarios.

5.4.12. It should be possible to build a new consensus around a few simple objectives. I would suggest:

- The distribution of illegal content should be prohibited;
- Adequate measures should be in place to guarantee the protection of children, applied at least to those services which can be readily accessed and are often consumed by children;
- Consumers should be guaranteed access to at least some sources of content which promise:
 - impartial news and comment
 - acceptable standards of taste and decency, fairness and privacy.

5.4.13. A reasonable case can also be made that rules which aim to control the amount of and placement of advertising, and separation of advertising from editorial content could be further relaxed. Regarding the amount, post-switchover, there should be enough choice in the market for all viewers and listeners to avoid services which have “too much” advertising. Regarding the separation of advertising and editorial, new forms of content will make it increasingly difficult to define what is meant by clear separation, while experience in other media shows that there can be significant consumer value in having content which has a strong commercial message element as part of it. Rather than strict rules about what is and is not acceptable, a better approach may be to focus on improving media literacy, perhaps alongside some simple (perhaps voluntary) identifiers for audiovisual content which contains promotional material. For example, many published magazines mark certain copy as “promotional feature” or similar.

5.4.14. Setting out objectives is the easy part. We now need to examine the options for achieving those objectives. There are broadly two (which may not be mutually exclusive):

- Continue to secure approaches in which there are designated content providers who are required to observe mandatory rules and codes;
- Move to a voluntary system, in which content providers “opt in” to a system of standards and codes, but which is essentially self-regulatory.

Mandatory rules

- 5.4.15. The first option would take the existing mandatory framework, and modify it so that it is more relevant to the new world. This could be done via a revised licensing regime, with Ofcom exercising its powers very much as now (or with a greater degree of co-regulation), or by introducing new laws which could be enforced through the courts.
- 5.4.16. Whichever approach, there is a similar challenge – which entities (broadcasters? ISPs? content suppliers?) should be part of the new framework? The rationale for intervention set out above suggests that content providers who retain a reasonable degree of influence (perhaps as measured by audience reach or share), who provide a broadcast-like service (as opposed to a “pull” or on-demand service), and whom the public expects – for the time being – to uphold certain standards, should be included. These criteria would point to a regime applying perhaps to:
- All publicly funded PSBs, or
 - All broadcasters with access to public assets, such as gifted capacity on a DTT multiplex or other public support, or perhaps
 - All linear broadcasters or broadcast-like services, as suggested by TVWF.
- 5.4.17. The advantage of retaining the focus of standards regulation on some or all linear broadcasters is that those broadcasters can be clearly identified and licensed. There are significant drawbacks, however. First, it will disadvantage linear broadcasters over time relative to non-linear content providers; second, it will distort the market and may create incentives for broadcasters to alter the nature of their services simply to avoid regulation – especially if the costs of compliance are high; and – see above – this distinction between linear and non-linear services increasingly does not reflect developments in the market or consumer perceptions of it.
- 5.4.18. Extending some sort of standards regulation – however limited – to “non linear” content, as suggested by TVWF, may become equally problematic over time:
- Immense practical problems, as described above;
 - Possible adverse impact on the development of the new media market in the UK and Europe, - recent reports for Ofcom examined the impact of TVWF proposals, and concluded that they would have a considerable negative effect on innovation and growth in new media.¹¹
- 5.4.19. A variation of this approach might be to extend the framework to include new “content aggregators” (rather than the many small and diverse content providers) alongside linear channels. Such aggregators could include

¹¹ Extension of the TVWF Directive, An Economic Impact Assessment, Indepen report for Ofcom, Sept 2005, and Assessing Indirect Impacts of the EC Proposals for Video Regulation, Rand Europe, Sept 2006

providers of managed IPTV services, such as Video Networks and BT Vision, and perhaps the larger ISPs, who are increasingly leading their customers to content they promote and position on their sites. For example, they might be required to:

- Clearly label their content, using some sort of classification system;
- Provide clear functionality to allow users to filter and block content to protect children;
- Within their “walled gardens”, or the content they actively provide links to, to ensure that content meets certain recognised standards of taste, decency, fairness and privacy;
- Provide a clear indication to users when they are moving out into the unregulated public internet;
- Meet best practice expectations for actively blocking illegal content.¹²

5.4.20. While this sounds potentially attractive, it too has some real problems:

- We do not as yet know how the market will develop, so this focus on content aggregators may turn out to be irrelevant in the medium to longer term;
- Disproportionate regulation of IPTV and ISP services may harm the emergence of new services in what is a very uncertain market;
- The practical difficulties may be almost as great as an attempt to extend regulation to all non-linear content providers – the market may ultimately have many different aggregators catering for specialist as well as mass interests, and again they may not be based in the UK.

5.4.21. Given the complications noted, a sensible interim approach may be to focus mandatory rules on those service providers (i.e. the main broadcast channels, however defined) which are still currently expected to adhere to such a framework, rather than to try to extend it to new entities.

Opt-in regulation

5.4.22. The alternative, and in my view in the longer term preferable, alternative to a mandatory approach is to devise some form of “opt-in” regulation. That is, rather than determining via legislation who should and who should not be part of the regulated arena, it should be left to the individual players to decide – perhaps encouraged by certain incentives.

5.4.23. For example, Ofcom might be asked to draw up the sort of general guidelines and other measures it would expect to see in place before a content provider or aggregator could become part of a family of approved suppliers. Those suppliers could be linear broadcast channels, they could be on-demand services, they could be content aggregators of the sort

¹² Many ISPs already subscribe to a voluntary code of practice which covers many of these proposals.

described above. It would be up to each individual organisation to decide whether or not to be part of the system.

- 5.4.24. In return for meeting certain agreed standards, content providers would be able to promote themselves as being part of the approved group (e.g. "kite marked"). Additional incentives might be offered to those joining – for example ranging from DTT capacity to spectrum pricing incentives, to EPG positioning, to other tax incentives. The need for such incentives would depend on how extensive (and costly) were the standards required of each company.
- 5.4.25. The advantages of this approach are that it achieves the desired aims – a limited but clear and transparent set of basic standards, which will help consumers and protect children, while avoiding any arbitrary choices about who should be forced to observe standards and who should not. Those who want to access content in a completely unregulated world would be able to do so, those who want some protection would have that option available, too.
- 5.4.26. It would be open to the regulator to vary the obligations by type of provider if that made sense – and to reflect any variation in incentives offered. But the system would be voluntary, not imposed. The ultimate penalty for breaking any agreed code would be to be ejected from the system. Note, the BBC would co-exist with this system and be expected to observe – as the publicly funded PSB – a more comprehensive set of standards on its main channels, thus setting a clear benchmark for the voluntary arrangements entered into by the commercial sector. The BBC would also have a significant role in setting standards for accuracy and impartiality of news.
- 5.4.27. Over the next 5 years or so, it may be possible to run both mandatory and opt-in systems in parallel – with the expectation of an eventual move to an entirely self/co-regulatory system in the years after switchover. For example, in line with TVWF proposals, the opt-in (self regulatory) approach could be applied to video on demand and similar "television-like" services, alongside a mandatory regime for established licensed broadcast channels. The bulk of content available on the public internet (including user-generated content) would fall outside this framework altogether. Over time, the mandatory regime might become more focused – applying for example just to public service channels. The challenge for policy-makers and regulators is to devise how this transitional period might work in detail, and to identify stages on the way to the new framework.

5.5. Wider policy issues

Context so far

- 5.5.1. Finally, we must prepare to take some key strategic policy decisions in response to new economic and social challenges, while ending some old interventions that will have outlived their purpose. Broadcasting regulation has been so far more focused on content issues than on economic or industrial policy objectives. PSB and standards regulation have been the main preoccupations of policy makers and regulators. Where policy and

regulation has strayed into the economic/industrial policy arena, it has often been for a mix of – not always very clearly delineated – reasons, which have included public interest and cultural issues as well as economic objectives. Two such interventions are those concerning support for independent producers, and support for regional production.

- 5.5.2. Independent production in the UK is supported by a 25% quota, which applies to all public service broadcasters, and by codes of practice, which have to be drawn up by PSBs and approved by Ofcom. The aim has been to open up the production sector (which was previously dominated by in-house production) and to ensure that independent producers can get a fair deal when supplying the major broadcasters. Although part of the rationale for this intervention is that the UK economy will benefit from a thriving creative sector, of a sufficient scale to compete internationally as well as at home, an equally important aim has been to ensure that the creative energy and innovation associated with the programming produced by the independent sector is fostered for the benefit of viewers.¹³
- 5.5.3. Regional production quotas – again imposed on the public broadcasters – are also driven by a mix of economic/industrial policy and cultural motives. The creative sector is seen as a potentially important driver of regional growth in some areas, but – without intervention – it is likely that it would be even more focused in London than it is today. Likewise, regional production is seen as being an important contributor to the reflection on screen and radio of regional stories, issues, talent and culture.
- 5.5.4. Support for independent and regional production has been made possible by public funding (via the BBC's commitments to independent producers and to the regions, but also with some money coming from regional development agencies) and by regulations imposed on the commercial PSBs, enforced by Ofcom.

Anticipating change

- 5.5.5. The scenarios analysis suggests some key changes ahead, which will affect both our ability (and need) to sustain the existing policy objectives in this area, but which will also introduce major new challenges.

Sustainability of existing policies

- 5.5.6. First, it is doubtful that an independent production quota in its current form will seem to make much sense, or be sustainable, in ten years' time, or earlier. In several scenarios, we imagine a much more open and diverse audio-visual sector in the UK, with many new content providers, and scope for producers to by-pass broadcasters (or content aggregators) and reach viewers and listeners directly. The market becomes much more international, creating larger markets for UK content, and less need for producers to rely on a small number of UK commissioners. Independent producers are likely to consolidate and grow in financial strength, and bargaining power. Channel 4 in that environment may be exposed to supplier power unless it can start to develop its own production strategy, perhaps via longer term alliances with producers, to help secure its rights

¹³ There is no formal intervention in the radio sector, although the BBC observes a voluntary quota of independent radio productions.

position. Intervention to determine the structure of the production market will no longer be needed.

- 5.5.7. Even in the “consolidation” scenario, it is likely that the inevitable new players involved in the sector will be much more open to the use of independent producers than are the established vertically integrated broadcasters of today. Only in “stagnation” does the current system of interventions look to be both justifiable and sustainable.
- 5.5.8. Regional production quotas may ultimately go the same way as the independent production quota. Quotas are needed now to encourage producers to locate in the regions and to build effective businesses there. If in 10 years’ time quotas are still thought to be needed to maintain regional content production, they will have failed in their primary task – to help build a critical mass of sustainable production activity in those regional centres. Moreover, as with all other PSB obligations, there will come a time when it is not possible to require regional quotas to be met by the commercial PSBs if they impose undue costs on those broadcasters. As with other aspects of the current system, a new model will be needed if it is still thought insufficient to leave regional production to the market.

New challenges

- 5.5.9. There are also new challenges for the future: addressing concerns about the UK’s creative production sector more generally, ensuring consumers are well-informed and, in a converged world, taking a fresh look at the meaning of universal provision and its importance both to individuals and to the UK as a whole.

Creative production sector

- 5.5.10. The UK has been reasonably successful to date in building its domestic TV and radio production sector, and has achieved recent growth in its exports, both in programmes and formats. Nevertheless, some would argue that performance has been disappointing, given the amount of public funding available to the sector, and the advantages we have in producing content in the English language. In some respects, our focus on public broadcasting in the UK could have hindered the more rapid development of our international programming potential – given the inevitable focus of producers on the highly specialised needs of the main PSBs here.
- 5.5.11. Looking ahead, the scenario analysis has identified two major risks to the UK creative production sector:
- That we continue to see a sector heavily influenced by the needs of the established broadcasters – and which therefore risks under-playing the need to develop and change to tap into markets for new, interactive and web-based content;
 - That developments at home, with an increasingly fragmented market, and more international competition, reduce the flow of funds into original content production.

- 5.5.12. Both of these are significant concerns, which might require a policy or regulatory response for the UK production sector as a whole, not just for the independent sector.

Informed consumer

- 5.5.13. Many of the potential gains arising from the changes outlined in this report will only be fully realised if consumers can make effective choices about the services on offer. Consumer information and understanding is the key to realising many of the potential benefits offered by competition and choice – consumers need a good understanding of how to use and interpret different media, how to access different networks, devices and functionalities, and how to choose between complicated bundles of services. The market, left to itself, may not always deliver the best outcome, so some intervention may be needed.

Universal provision

- 5.5.14. Although one of the scenarios in this report is based around a complete transformation of the audio-visual sector, with high speed broadband universally available, used, and likely to be supported by heavy investment in the provision of fibre-based access, the other three scenarios paint less optimistic pictures of the future roll-out and take-up of high speed broadband. They describe a future in which we are dependent on ADSL broadband services over copper wires rather than fibre in most parts of the country, and in which there is still a sizable minority of the population which has not taken advantage of the broadband services available to it.
- 5.5.15. Some would argue that, if there is a reasonably competitive marketplace in the UK, and this is the market outcome, then we should not worry any further. However, the UK market for access services may not be effectively competitive. Competition might not work well for several reasons, ranging from economies of scale and scope, which may limit the number of potential access competitors, to the current market structure (which may not provide the main players with an incentive to innovate and invest), to worries about regulation (will the regulator claw back any profits that investors might ultimately make?).
- 5.5.16. Others point to the wider social and economic benefits that might flow from universally available high speed broadband, and to the effects on the UK's international competitiveness of falling behind other countries which have a more pro-active broadband policy than ours. Given the potential importance of the issue, and the uncertainty about the outcomes, this seems to be an area which calls for further detailed and expert consideration.

Options for the future

- 5.5.17. Actions in this area will flow directly from the big policy choices that governments are in place to take. Nevertheless, there are some broad observations that can be made based on the preceding analysis.
- 5.5.18. First, as in other areas of broadcasting regulation, even where existing policy objectives remain important, there will need to be a move from implicit cross-subsidies and other indirect levers, which have been used to achieve them in the past, to more explicit and direct government interventions,

typically accompanied by funding. For example, if regional production still requires support in 10 years' time, it will need to be provided either through the BBC or, perhaps, through a generally available system of grants to help support regional producers, rather than through regulation aimed at changing the business decisions of the main commercial broadcasters.

- 5.5.19. Second, some of our recent and current concerns – e.g. regarding the independent production market – should be much less significant. It should be possible to remove the more general application of the independent production quota and supply codes, focusing instead on competition law to ensure that any remaining anti-competitive behaviour will be clearly dealt with, should it occur. There may, however, still be a case for special rules for the BBC – it is desirable that some of the BBC's public funding should be used to continue to support the development of the independent sector as well as the BBC's own production resources, to ensure it secures a diversity of creative ideas and voices in production.
- 5.5.20. Finally, new approaches will be needed to address some of the emerging concerns:
- A strategy to support original production in the UK (both in-house and independent) will need to be considered, both to ensure that viewers continue to benefit from high quality local content, and to support the UK's international competitiveness. Partly this is about a competitive and open market, partly about securing effective public funding of content, but it is also about encouraging innovative new approaches. Ofcom's notion of a PSP, or some variant of it, might be revisited here as one way of addressing the challenge of encouraging the UK creative sector to develop its creative new media strengths further, as well as its traditional broadcast-related skills;
 - Concerns about consumer information could be met through a variety of policy initiatives – including a continuing focus on all aspects of media literacy and on the provision of transparent and open information about the prices and capabilities of the different platforms and services on offer;
 - Perhaps the biggest issue, and an appropriate one with which to end this chapter of the report, is that of the underlying infrastructure and its universal availability – delivering not just high quality content to everyone, but alongside that providing support for many other elements of modern economic and social life.
- 5.5.21. In an ideal world, we would aim to create a virtuous circle in which highly valued content helped to drive take-up of broadband services and investment in high capacity infrastructure. In turn, the capabilities of the new broadband pipes would help lead to exciting new services and greater consumer value. A thriving content sector, with a competitive market and continued proper funding of public interest content has an important part to play. But the other half of the story is about the market for broadband infrastructure in the UK – what sort of market do we want it to be, how competitive can it be, and what – if any – public support might be needed to make it happen.

6. Concluding observations

- 6.1.1. In this report, I have identified four key challenges for policy and regulation, and argued that new thinking on the way forward in each of these areas needs to start soon, given the pace of change under way. I have also suggested that there is a major opportunity to move from a very regulated sector to one in which much more emphasis is placed on allowing the market to work, to fully capture the potential offered by the new technologies and services available. This, I would suggest, should be the overarching theme for thinking about regulation of broadcasting in future – less regulation, and better targeted and explicit initiatives where intervention is justified (as it plainly still is in some key areas).
- 6.1.2. Above all, regulation needs to be simple and flexible. The real risks for policy makers and regulators in such a fast changing environment are:
- Making the wrong call, based on inevitably limited knowledge of the future;
 - Regulating for old problems, when the world has already moved on;
 - Producing proposals which, in view of the changing market, turn out to be impractical and impossible to implement;
 - Regulating an ever decreasing part of the market, just because it's the only part that can be regulated.
- 6.1.3. Making these sorts of mistakes can impose major costs on the sector, and on the country as whole. They might:
- Deter innovation/distort investment decisions;
 - Drive investors overseas to other markets with a more benign approach;
 - Hinder the natural creative strengths of the UK economy;
 - And risk losing public consensus.
- 6.1.4. To guard against these risks, consideration should be given to four important principles:
- 6.1.5. First, it is important to ensure that future developments in policy and regulation are based on a clear strategy for the future, which spells out broad policy goals and the general direction of travel. For example, key elements of the strategy might include a position on the future importance of PSB, the degree of plurality of its provision, how it should be funded, how open and contestable that funding should be, and so on. Other elements of the strategy might include a view on the role for individual responsibility in controlling access to undesirable content, an overall philosophy about the balance between *ex ante* and *ex post* approaches to competition concerns, the longer term aims for broadband availability and take-up.
- 6.1.6. Second, more than ever before, there needs to be a reasonable amount of flexibility built into the next regulatory framework – as far as possible setting

out the clear direction and aims, but leaving some of the detailed execution to be developed in response to market developments. The level of detail contained in the Communications Act, for example, may not be sensible in future legislation, if the framework is to be sufficiently responsive and flexible. There should be a clear premium placed on simplifying and removing unnecessary or unproductive regulation from the sector.

- 6.1.7. Third, there should be targets for reducing regulation, given the potentially high costs of making regulatory mistakes and getting in the way of investment and innovation.
- 6.1.8. Fourth, the challenges identified underline the importance of a converged approach to regulation. There are many linkages between broadcasting content and telecoms network regulation – ranging from access policy to spectrum allocation decisions. Decisions taken in one area can significantly influence the outcome in another. Ofcom was set up to make the key connections – this will only become more important over the next 5 to 10 years.
- 6.1.9. Finally, then, work needs to begin early on debating and resolving the issues identified in this report – there is a potentially significant risk in leaving this task to a time which is too close to the point of switchover. I hope that this report will contribute to those discussions and debates.

7. Annex A: Market Trends

7.1. Introduction

7.1.1. This annex provides the building blocks for the scenarios, and examines the main factors likely to affect the development of UK and international electronic media markets over the next 10 years, covering technology, consumer demand, content and market structure. The sections draw on recent and current trends and, where they are available, report projections of trends over the period.

7.2. Technology change

Overview

7.2.1. The next ten years are likely to see accelerated technology change and consumer adoption of new technologies, as the capabilities of networks and electronic consumer devices increase, and prices fall. Consumer expectations and behaviour will be significantly affected, and business models will need to be re-engineered.

The key trends are likely to be:

- Continued move from analogue to digital: digital switchover will have been completed, and all UK households will receive their broadcast TV services over digital platforms, increasing the range of services available, and enabling enhanced interactivity and high definition;
- Internet protocol (IP) networks and high speed broadband delivery will become the norm – BT will have introduced its next generation IP network, and data and multimedia content will be available via high speed broadband connections, offering downloads and streaming of broadcast-quality images, and also the scope for uploading of consumer-generated content;
- A dramatic improvement in compression, peer to peer capabilities and cheap high capacity storage will transform the capacity of distribution networks, the costs of distribution, and the ability of consumers to store data and content in the home;
- Next generation mobile services – using 3 or 4G networks, or mobile broadcasting systems – which will enable the delivery of high quality audiovisual content to portable devices and mobile phones;
- Intelligent user interfaces – including navigation and search tools – which help users find their way around the huge volume of content they could have access to over the broadband networks.

Digital broadcasting

7.2.2. The first and probably most certain of these developments is that we will be in a fully digital world by 2016, at least as far as television is concerned. The UK television switchover programme is scheduled to be completed by 2012,

and take-up of digital TV has already reached 70.2 per cent of all UK households.¹⁴ Much of the most recent growth in digital TV take-up has been driven by the success of Freeview, the free to air DTT platform, which offers a 30 channel choice for a one-off payment for the set top box or integrated receiver, but no continuing subscription charge. Currently, 48 percent of digital viewers receive digital satellite, 36 per cent receive DTT, and 16 per cent receive digital cable.

- 7.2.3. Forecasts of the future growth in the different platforms vary. Enders Analysis, for example, projects that DTT will be the main digital platform in around half of households in 2014.¹⁵ But all households, by 2016, will have a greater choice of channels than available to analogue only viewers, and more than half of them will have a significantly greater (i.e. 200 channels and more) choice, alongside new technologies which allow home storage of content and access to on-demand services (see later).
- 7.2.4. High definition (HD) TV is likely to be a key related development, alongside the increasing demand in the home for large flat panel plasma and LCD screens. Large screens tend to emphasise the deficiencies of standard definition services, and high quality DVDs are setting a benchmark for future broadcast services. Telewest and BSkyB have launched their HDTV services, and others are expected to follow. While sufficient bandwidth exists for the introduction of HD services on satellite, DTT is another story – HD channels require 16-20 Mb of bandwidth, compared with 3-4 Mb for a standard definition service. Moving from Mpeg-2 to Mpeg-4 compression technology will halve the capacity required, and further technology advances could provide additional gains – but the scope for moving quickly in this direction is constrained by the challenge of ensuring compatibility with existing receivers.

IP and broadband

- 7.2.5. Broadband take-up in the UK has been a marked success story over the past couple of years, as competition between service providers has increased, speeds have risen and prices have fallen. Latest Ofcom figures suggest that around 40 per cent of households now have a broadband internet connection,¹⁶ via either their telephone line through ADSL (Asymmetric digital subscriber line) technology or via cable, and the standard package offered by BT delivers a downstream speed of 2Mb per second.
- 7.2.6. Looking ahead, BT will introduce an improved version of ADSL, which should increase available speeds to 8 Mb/sec, allowing high quality streaming of audiovisual content – this capability may be available to around 40-50 per cent of households, depending on distance from the local exchange. Alongside this, local loop unbundling, which allows internet service providers to take control of the local access line from BT, should help encourage continued competition in broadband provision, allowing service providers to offer customers a flexible range of prices and speeds. Peer to peer systems, which allow use to be made of the storage capacity in user PCs to share and download files, can also improve the economics of large scale on-demand content provision – content providers can avoid

¹⁴ Digital Progress Report, Ofcom, Q2 2006

¹⁵ Freeview Plus, Enders Analysis, June 2005

¹⁶ Communications Market Report, Ofcom, August 2006

investment in large servers by distributing the load among users (although this in turn affects the volume of traffic on the internet itself).¹⁷ Digital cable networks are also offering similar increases in broadband speeds – and their networks will cover broadly similar geographical areas to those reached by BT's improved ADSL service.

- 7.2.7. Forecasts prepared by Enders Analysis suggest that broadband take-up could have reached 65 per cent of UK households by 2010,¹⁸ although there is less certainty about developments beyond that point, as the remaining market may consist mainly of the older or less well off, who are less likely to want or be able to afford high speed connections. Of the total broadband population, Enders expects around two thirds to access television-style programming over the internet. PwC, working for Ofcom's Television Production Sector Review, examined a range of independent forecasts, and concluded that the average of those forecasts would suggest a broadband penetration of 48 per cent by 2011. PwC also reported that on-demand TV would, according to the average of independent forecasts, account for 15 per cent of total TV consumption in 2011.¹⁹
- 7.2.8. Alongside broadband access to the public internet, we will see the development of "managed" IP services, like that already offered by Video Networks' Homechoice service. These are end to end services which use reserved capacity on the internet and proprietary set top boxes to guarantee a specified quality of service to the content provider and end-user. They can provide live ("broadcast-like") TV channels as well as on-demand services and, as such, compete in the territory currently occupied by digital cable and satellite. Hybrid services may also be offered. BT Vision, launched recently, brings together over-the-air DTT broadcasts, with a broadband delivered on-demand service, all offered through a single user interface in the set top box. BSkyB has launched its own on-demand broadband service using the internet, and could ultimately link this more directly to its DSat TV package. Podcasting (audio downloading) is already widely available.
- 7.2.9. Widespread availability of content delivered via broadband will increase the demand for high bandwidth broadband connections. A study by the UK Broadband Stakeholders Group,²⁰ for example, suggests that, by 2012, demand in the most bandwidth-intensive households could reach 23 Mb/s downstream and 14 Mb/s upstream. At present, however, there are no concrete plans from BT or other infrastructure providers in the UK to invest in the widespread provision of fibre to the home or kerb, so the capacity may not be available.

¹⁷ There are, however, issues of costs and also capacity constraints which might arise if there is heavy use of the internet – in its current form – for streaming of rich audiovisual content. Indeed, the public internet is probably more suited to on-demand downloads than to real time viewing.

¹⁸ UK PC Video on Demand, Enders Analysis, March 2006

¹⁹ New Media Rights for TV Programmes in 2011, PwC presentation at the Westminster Media Forum seminar, March 2006

²⁰ "Predicting UK Future Residential Bandwidth Requirements", Broadband Stakeholders Group, May 2006

Home storage

- 7.2.10. While the capacity of the broadband pipes might still limit the extent to which we can expect instant on-demand and high quality audiovisual content to be delivered simultaneously to many users over these new networks, the addition of home storage into the equation can significantly enhance the capabilities of both broadcast and broadband services.
- 7.2.11. Personal Video Recorders, which combine a hard disk storage device with a television receiver, are now (largely through the installation of Sky+) in around 1.7 million homes in the UK. NTL also offers PVR capability, BT includes hard disk storage in its BT Vision set top box, and there are now several models of PVR available for use with Freeview services.
- 7.2.12. Over the next ten years, not only will the numbers of PVRs in use grow quickly,²¹ but storage capabilities will see a further step change. So far, storage capacity seems to have almost doubled every two years, for the same price. Current PVRs typically offer 80 Gb of storage, compared with 40 last year, and 20 when PVRs were first introduced into the market.²²

Mobile broadcasting

- 7.2.13. Several different mobile broadcasting initiatives have been launched in the UK: BT's Movio, which uses spare capacity in the spectrum allocated to DAB, the Oxford trial, run by O2 and Arqiva, which uses DVB-H, and 3G services offered for example by Vodafone and Hutchison 3.
- 7.2.14. Mobile telephone networks are configured for one-to-one communications and the cost of transmitting video to large audiences over these networks can be expensive. Because of this, most 3G services offer downloadable video clips of up to a few minutes' duration. Mobile broadcast television – e.g. using DAB or DVB-H – could be more cost-effective for the provision of streamed real time broadcasts, but, in the case of DVB-H, will require new transmitter networks to be built. Early indications from the trials seem to be positive – consumers are interested in accessing certain types of content on mobile devices and say they are willing to pay (modest amounts) for it. Linear TV channels so far seem to have worked best, but this may be a reflection of what consumers are used to rather than what they will eventually choose to watch – and some content suppliers see more longer-term potential in providing on-demand content, in bite-sized chunks.²³
- 7.2.15. As storage costs fall, we may see the development of more download services aimed at mobile devices – possibly using broadcast streams rather than on-demand content over mobile telecoms networks.

²¹ Enders Analysis forecasts an increase to around 10 million homes by 2012, (The PVR and Adding Value, May 2006) and PwC's average of independent forecasts, prepared for Ofcom, projected PVR ownership at around 10 million by the end of the same period.

²² Note: devices are now available on the market which can turn PCs into TV receiver/PVRs – for example, Eye TV's Miglia, retailing at £80.

²³ Forrester consultants predict that 60% of Europeans will have 3G mobile phones by the end of 2010 (European Mobile Forecast, 2005-2010, Published March 2006). They predict UK and Italy will be in the lead, and that about half of subscribers will regularly use mobile internet services.

Intelligent user interfaces

- 7.2.16. In a conventional analogue broadcast world, the broadcaster “owns” the relationship with the consumer through access to the broadcast spectrum and, importantly, the channel brand and linear schedule. In the digital satellite and cable world, ownership of the physical link with the consumer – the physical infrastructure and the set top box - becomes more important, and applications such as electronic programme guides which run on the set top box have proved to be powerful tools in helping users find the content they are interested in.
- 7.2.17. Over the next ten years though, we are likely to see the development of much more sophisticated user interfaces, which bring to television content the features currently offered by Google and others for web content. Deloitte’s TMT Trends²⁴ technology predictions for 2006 suggested that search engines will soon challenge e-mail as the leading digital application. Some of these devices will be integrated with the content proposition (like Sky’s EPG today), and may offer access only to a walled garden of content services. This may remain the model for managed television services, whether delivered over the air or via an IPTV system. Alternatively, there could be a more open environment on the open internet - it may well be that the broadband world will allow the emergence of independent and intelligent user interfaces, which consumers can select and download themselves. Others may be incorporated in the consumer devices which help bring together the different sources of media content in the home – for example Microsoft’s media centre.
- 7.2.18. Digital rights management is another key aspect of the user interface, and will become increasingly important. Some platforms offer closed proprietary systems – for example the Sky platform – which provides strong rights protection by limiting the scope for consumers to transfer content to their own devices. Other systems in use include that developed by Microsoft, which underpins both the BBC and BSkyB planned internet-based download services.
- 7.2.19. Another key aspect of the user interface is the extent to which it will allow consumers to manage more actively the content they choose to receive, and the content they choose to block. For example, through the application of content labelling and filtering software. At its simplest, better labelling allows users to decide whether or not to watch a particular programme. Coupled with filtering and blocking mechanisms, with pin code security, ratings can be used to automatically allow or disallow certain types of content – for the protection of younger viewers, for example. These systems can work well for broadcast content, especially if broadcasters have adopted a common ratings approach. They are less good, at present, for controlling access to content made available via the public internet.²⁵

Observations and uncertainties

- 7.2.20. In 10 years’ time we will potentially live in a fully broadband and digital world. This will mean more choice for consumers – choice both between

²⁴ TMT Trends: Technology Projections 2006, Deloitte, February, 2006

²⁵ Filters have a variable performance in blocking undesirable content, and may also unintentionally block perfectly acceptable content, too. There is no widely used common rating system for internet content

distribution platforms and between sources/types of content. Consumer devices will have the functionality to offer consumers more active control over what they watch or listen to and when they do it. It will be possible to watch the same content or re-versioned forms of it on the flat screen in the living room, on your PC in the study, or on mobile devices when out and about. It will often not be possible to know if the content has been delivered over the open internet or broadcast into a home storage device – resulting in a significant blurring of the boundaries between traditional broadcast and online content, and between so-called linear and non-linear delivery.

7.2.21. Against the background of these directional changes, the main uncertainties are likely to be:

- The pace of adoption of the new technologies – especially regarding when they will transit from leading-edge into mass market use. Could some segments of society remain largely by-passed by these developments, or will everyone be drawn in, just as TV and radio have become ubiquitous over the past decades? Does it matter?
- The extent to which communications network providers will invest in infrastructure upgrades to meet the anticipated high bandwidth requirements of their customers;
- The balance between broadcast and broadband delivery – broadcasting economics (with a near zero marginal cost of serving each additional user) may still favour more conventional one-to-many broadcast transmission for many uses. Broadband might only be used where the extra functionality is sufficiently valued by consumers to cover the extra delivery costs involved;
- The speed with which the so-called “converged” or “connected” home will appear – will we, by the end of the 10 years, obtain our media and communications services down a single “pipe”, which then feeds devices throughout the home, perhaps using wireless technology, or will we remain in a disconnected world, in which services for the TV screen are still delivered separately from those aimed at the PC and mobile devices?
- The capacity of the internet to evolve to meet new consumer demands, and the costs involved in so doing – can the technology keep pace with consumer expectations on the one hand, but also deal with consumer concerns about security, fraud, scams etc on the other?

7.3. Consumer expectations, and implications for content

Overview

7.3.1. A study of anticipated technology change is only part of the story. We also need to understand how consumer expectations and behaviour are changing, and how they are likely to continue to evolve over the next

decade. What sort of media services will consumers want, and what type of content will they prefer?

7.3.2. The past 10 years have brought some well-rehearsed trends. An increasingly affluent society has been able to afford to buy more of the latest consumer electronic equipment, and pay more for highly valued media content. At the same time, consumers have less spare time and are more demanding, with increasing expectations of fast response, good service, value for money, and wide choice. Leisure has become for many a more precious commodity, increasing the premium placed on using it productively. This has meant that individuals are making more active choices in how they use their spare time – including the consumption of audiovisual content. We have also seen increasing segmentation of consumers into different groups, each with its own tastes and preferences. Atomisation of society has contributed to the growth in the use of the internet as a new social networking tool. As a result, audiences for television and radio content have become more fragmented.

7.3.3. The key trends seem likely to include:

- Continued emphasis on consumer choice, information and individual control;
- Growing importance of the internet as an aid to social networking and as a means of participation and engagement in content creation, in its broadest sense;
- Further fragmentation of media consumption, tastes, preferences;
- Widely varying views about the appropriate balance between free expression and regulation of undesirable content;
- Increasing focus on consumer protection issues, and in particular the risks to vulnerable groups.

Choice and control

7.3.4. Ofcom's PSB Review²⁶ identified several underlying trends which will influence the way we select and use audio-visual content in future:

- Family trends – with more single person and multi-person (sharing) households than ever before; and increased access for children to their own PCs and television receivers;
- Pressure on time – as working hours rise – which means we all place a greater emphasis on making the right choices in how we use our spare time, and are unwilling to waste that time on things we are not sure will deliver us real value;
- A sense of entitlement – which can express itself in an emphasis on the rights of the individual, and in a willingness to be active and

²⁶ Looking to the Future of Public Service Broadcasting, PSB Review Ofcom, September 2004

informed consumers. In turn, this encourages us to believe we can take a more active role in what used to be a passive medium – television, radio and the internet.

- 7.3.5. Whatever the underlying drivers, recent market trends have confirmed the value which consumers place on choice and control, and there is little reason to assume that this will change markedly over the next few years:
- The success of iTunes and podcasting, which allow users to select and download their own music and other content, and construct their own schedules;
 - The rapid rise in DVD sales and rental, which again allows users to choose their own entertainment for (say) a family viewing evening, rather than relying on scheduled TV channels;
 - The growth in usage of PVRs –Barb data suggests around 15-20 per cent of viewing in PVR homes is time-shifted (based on survey data in March/April 2006), but a minority of 15 per cent of homes time shifts more than 40 per cent of viewing. US experience suggests that time shifting rises as familiarity with the PVR functionality increases.

- 7.3.6. We should not take this too far – at the same time, there are signs that people still enjoy coming together for mass viewing experiences which they can talk about the next day. There is still a demand for shared leisure activities – from concerts to sports events – and, even in the online world, communities of interest provide a focal point for chat and shared user generated content. But often the communities which arise in this way are based around very specific interests, and may appear closed to those who are not part of that interest group.

Social networking and participation

- 7.3.7. Traditional TV viewing and radio listening is also being displaced by new forms of communications and entertainment. Notable trends include:
- Games playing, often online with multiple players;
 - Popularity of community based web sites such as MySpace.com;
 - Growth in user-generated content – blogging, chat, exchange of photos and videos (for example, Youtube.com and Flickr.com);
 - Fascination with creating personal lists, archives and content stores.
- 7.3.8. So, alongside a demand for greater choice and control, we are also likely to see increasing use of broadband and mobile services for social networking, virtual conversations with like-minded communities, and for more active engagement in the process of content creation in the broadest sense. Cheaper and simpler digital content creation tools will help support further developments in this area – possibly displacing time that would otherwise have been spent consuming more traditional media. Broadcasting is no longer the “default” medium of choice for many younger people.

Fragmentation

- 7.3.9. Over the past few years, although total TV viewing has held up remarkably well, given the amount of competition from the internet and other leisure activities, it has become increasingly fragmented, continuing a long term trend that began with the onset of multi-channel broadcasting. Two thirds of households now have access to digital channels – there are now more than 370 TV channels broadcasting in the UK and Ofcom issued 143 new UK licences to broadcast in 2005 – more than ever before. One third of these were for general entertainment services.
- 7.3.10. As a result, the main network channels' audiences are steadily declining – down to around 70 per cent of all viewing but only 48 per cent in DSat homes. The main broadcasters have offset some of this decline by launching portfolios of channels which have helped claw back some of their lost audience share.²⁷ The multi-channel audience is younger and on average is drawn from a higher socio-economic group than analogue terrestrial TV.
- 7.3.11. Very few of the new multi-channels manage to attract significant viewing shares, however – 2 per cent would be considered a very good audience share, and there must be some doubt about the continuing viability of such a large number of channels competing for a static total audience and for limited revenues. There is pressure on subscription revenues as more channels seek to be part of the Sky basic channel package, and advertising growth over the next few years is predicted to be, at best, only modest. Over our ten year horizon, it is almost certain that the audiences currently tuning into linear multi-channels may increasingly be attracted by on-demand services, which can simultaneously offer a much wider choice and provide content that is more tailored to each individual's tastes and preferences.²⁸

Implications for content

- 7.3.12. Influenced by the above developments, there may be significant changes in the nature of content that people want, how it is produced, and the services which are built around that content. We are already seeing signs that content production is becoming polarised – towards either the high end, high production value programming, designed to attract large audiences, or to content designed for more niche audiences. We are also seeing the introduction of more interactivity around some types of content, and the rapid growth and popularity of user-generated content on the internet (even if such content is defined in a rather broad sense).
- 7.3.13. These trends are likely to continue and strengthen. At its extreme, we may see a "collapse of the middle", as demand for schedule-filler material falls, and as advertising drifts away from conventional broadcast TV into new media. We may also see a continued growth in virtual communities who use the internet for social intercourse, but also for sharing thoughts and ideas in text, audio and video form – all of which reduces the time people have available to view more conventional content. A risk, here, is that the market becomes too fragmented to continue to support satisfactory levels of investment in UK production.

²⁷ The Communications Market Report, 2006, Ofcom, August 2006

²⁸ Recent plans by Top-Up TV to replace some of its linear channels with an on-demand service seem to confirm this view.

7.3.14. Catch-up TV and radio will also be a growing phenomenon – with new services allowing viewers and listeners to access recently-broadcast programmes, on-demand, for a limited period after their initial transmission.

Public interest concerns

7.3.15. Public expectations of content standards and their regulation are also changing. We may be about to witness a breakdown in what for many years seems to have been a public consensus about standards of taste, decency, fairness and privacy on TV and radio, rather than the emergence of a new consensus:

- Ofcom's annual survey of public attitudes and perceptions²⁹ shows that, although most people are happy with or indifferent to existing content standards, there is still a significant minority which is unhappy with standards on TV. Just under one in three viewers found something offensive on TV, with older viewers more likely to be offended than younger viewers;
- Clear majorities felt that there was too much violence, swearing and intrusion on TV – although importantly a majority also felt that other people had a right to watch material which they themselves found offensive;
- The main reason for regulation was thought to be the protection of children (71 per cent of respondents).

7.3.16. Broadcasters, more than any other media organisations, are still seen by many to have particular responsibilities. In the Ofcom survey more people felt that responsibility for protecting children should be shared equally between broadcasters and parents, than felt it was a mainly parental responsibility. Awareness of the watershed continues to be high and 64 per cent of respondents thought that the 9 pm time was "about right".

7.3.17. Similar surveys which have covered content on the internet reveal that consumers tend to make a distinction between "push" and "pull" content when thinking about content regulation. The internet is seen to be an unregulated world, which users actively choose to enter, and one in which free expression is paramount. In contrast, conventional TV is invited into the home, and is seen to be part of the family experience – it is expected to meet higher standards. Nevertheless, there is significant parental concern about access by children and young people to undesirable content on the internet, and a general lack of awareness of how to go about ensuring a protected environment for children in the home.

7.3.18. These concerns, and the difficulty of addressing them adequately, will become increasingly important over the next ten years as the risks of exposure to internet content in a TV environment become greater.

7.3.19. Other public interest concerns are likely to centre around public interest content, cultural issues and consumer protection concerns:

²⁹ The Communications Market Report 2006, Ofcom, August 2006

- Reports ranging from Ofcom's PSB Review to the White Paper on the Future of the BBC have reiterated the rationale for intervention in the broadcasting arena, even in a fully digital world, to ensure the provision of public interest content – programming which would not be guaranteed by the market, but which is valued by society as a whole. Perhaps the biggest challenge, though, is to address a possible rising public indifference to public interest content. It is quite possible that, given the choices available, individuals will in future exercise that choice to watch or listen to content they personally value, and not to content which is thought to be good for them, or for society;
- Cultural issues: The internet can have a positive influence in helping the different cultures and communities of the UK find content about their own cultures, or engage in communications with others sharing the same interest. The possible risks are that we lose the sense of a shared culture and values, and that UK content more broadly suffers a declining share of voice, as users choose from a vast amount of content generated outside the UK;
- Consumer protection concerns: although the internet has transformed our lives in many ways, it has also exposed us to new threats – which range from the annoying (lots of unwanted e mails – spam) through to the profoundly dangerous (for example, fraudulent access to bank accounts, identity theft). Consumer issues such as fair trading, information, and proper billing are also important.

Observations and uncertainties

- 7.3.20. Even in 10 years' time, the odds are against a complete collapse in consumer demand for conventional scheduled broadcast channels. Viewers and listeners will still on occasion value broadcast channels which invest in high quality programming and are built around schedules which are convenient to watch. They will still value regular shared experiences with other viewers and listeners – and some types of programming will be at their most relevant and enjoyable when consumed live in real time – from news, to sport, to reality shows, to phone-ins, to major events.
- 7.3.21. However, in multi-channel households, already 50 per cent of all viewing is to the "other" channels and, in Sky+ households, time shifting is becoming more significant. These are important indicators of how much the world will change – and how much, in 2016, of our media consumption is likely to be on-demand or self-scheduled. If even half of our weekly consumption is viewed in this way, using the different platforms described in the technology section above, there will be profound implications for the economics of the sector and for key policy and regulatory issues.
- 7.3.22. The main consumer/content uncertainties are:
- The balance of consumption between conventional linear broadcasting and a more active (i.e. on-demand, self-scheduled) mode – will on-demand be the core viewing mode, or a nice to have but only occasional add-on?

- The extent to which we will see further fragmentation of viewing and take-up of new media as current younger audience groups become the mainstream consumers;
- The extent to which there will emerge a clear digital divide between the haves and have-nots – or will low cost consumer technology and “free” broadband largely bridge that divide?
- The extent to which user generated content and today’s professionally produced content might evolve over time to create new content forms, and the extent to which the social networking and conversational activity on the internet will displace consumption of more traditional audiovisual material;
- The extent to which content will become more polarised between high value, mass market and niche orientated programming – and the degree to which it will incorporate many more of the features of interactivity and engagement which are common to many current uses of the internet;
- Consumer willingness to pay for content – catch-up TV and radio seems unlikely to be a new “pot of gold”, given that hard disk storage will allow users to create their own catch-up service, using their PVR, but will other paid-for TV content prove to be as popular as music downloads have been for iTunes?.

7.4. Market developments and competition

Overview

7.4.1. The combination of changes in technology and consumer behaviour described so far could have a profound effect on business models and market structure in the audiovisual sector over the next ten years. This section describes the main possible developments, looking at the challenges facing existing broadcasters and new entrants, and outlining key issues for content production, funding and competition.

7.4.2. The key trends looking ahead seem likely to include:

- New media and distribution platforms will become much more important, and there will be a wide range of new on-demand and interactive services available;
- Established sources of funding may be at risk, as TV advertising declines in relative importance, but new funding models may emerge;
- New entrants may be able to lever brand names and assets built up in the online world and other markets into the media sector;
- Broadband distribution platforms may enable content producers to bypass traditional broadcasters and reach consumers directly – but they – along with others – will face the challenge of alerting

consumers to the content they offer, and ensuring it stands out from the crowd;

- User generated content and communications may begin to displace consumption of more conventional audiovisual programming;
- Customer relationship management may become as important as production and distribution;
- In response to intense competition, there may be new consolidation in the sector, leading to more concentrated markets;
- Established broadcasters will need to restructure their businesses to survive in an increasingly on-demand world, in which traditional sources of funding may be at risk.

New media and new platforms

- 7.4.3. Alongside digital broadcast platforms (DTT, cable and satellite), broadband will emerge as a new opportunity (and also a threat) for existing and new broadcasters. Broadband roll-out, and the provision of content over broadband services, will be driven by competition in the market between the main cable, telco, and broadcast competitors, who will all offer “triple play” bundles of services to their customers in an attempt to gain market share or to protect their existing customer base.
- 7.4.4. BT, for example, will invest in broadband and IPTV to protect its market position, faced with competition from cable and Sky, who will offer their customers convenient bundles of telephony, broadband and TV content. Further pressure will come from new operators taking advantage of regulated access to BT’s local loops to establish competing consumer propositions.³⁰ Existing broadcast platforms can also be enhanced to provide some of the features associated with broadband on-demand. HD capable Sky+ boxes, for example, will have a significantly enhanced storage capability, and will be capable of accommodating “push” content services.
- 7.4.5. TV over the open internet is a slightly different story. Entry is relatively easy (subject to obtaining content). Each provider will offer content and its own application for downloading programmes and typically for copyright protection – usually incorporating its own electronic programme guide or navigation tool. Enders Analysis³¹ projects that just over 10 million households (40 per cent of the total) will be using the internet to download TV content in 5 years time. However, there is some uncertainty about likely consumer demand. A YouGov/Oliver & Ohlbaum consumer survey recently reported that only 15 per cent of respondents said they would be “interested” in paying for TV content on-demand, and only 2 per cent were “very interested”.³²

³⁰ Note, though, that capacity will be limited to the capabilities provided by ADSL using the copper-based local telephone network, unless a major new investment programme in fibre-based access networks is undertaken.

³¹ UK PC Video on Demand, Enders Analysis, March 2006

³² O&O/YouGov

On-demand services

7.4.6. On-demand services will be supplied in broadly three ways:

- Using push technology – broadcast to the storage capability of next generation PVRs;
- Via cable managed IPTV services – such as BT Vision;
- Over the open internet – quality considerations suggest that this will be focused more on downloaded material than streaming.

7.4.7. Ultimately all three services will converge in the sense that content delivered via each system will be available for viewing on all screens within the home. Over the first few years of development, though, the third (open internet route) is likely to remain focused on the PC.

Developments so far

7.4.8. Although on-demand and broadband markets are in their infancy around the world, there are many examples of content providers and broadcasters experimenting with different models.

In the US:

- Digital cable offers a type of catch-up version of some of the key broadcast channels, either at no charge or for a small extra subscription (e.g. HBO for an extra \$4.95 a month);
- The network broadcasters are offering downloads of some key programming shortly after first transmission – either via intermediaries like AOL and Apple, or via their own websites. Typically, a new episode of a popular drama, like CSI has been offered for \$1.99 (without ads) or \$0.99 (with ads). ABC has also offered free streamed versions of Desperate Housewives and Lost, with advertisements included;
- Broadband sites, such as AOL's In2TV are offering access to a wide range of (relatively old) archive programming – either free (with ads) or at a modest charge;
- Push video technology is being introduced by the digital cable and satellite services, by which programmes are transmitted over the air and stored in the PVR for later on-demand usage;
- Google is developing a video search tool, which will allow online access to a huge range of audiovisual content, much of it free and user generated, and has recently acquired YouTube.

In the UK:

- BSkyB has launched Sky by Broadband – with on-demand access to certain types of content, currently offered as part of the premium Sky subscription package;

- NTL and Telewest have launched a VoD offer;
- Video Networks' Home Choice service offers a range of streamed and on-demand content using a managed IP service;
- BT Vision's hybrid DTT/broadband on-demand service which offers paid-for on-demand content, alongside the free to air TV broadcasts, with a PVR capability in the set top box.

7.4.9. Podcasting of music and other audio programmes is rapidly growing in popularity, but data on current use and credible forecasts are hard to come by. In the US, for example, projections of future podcasting levels for 2010 have recently varied from 12 million regular users (Forrester) to 56 million users (The Diffusion Group).

Possible market developments in the UK

7.4.10. Based on this analysis, we might expect to see a mixed model emerge in the UK audio-visual sector, with a combination of free to air conventional broadcasting, and a range of on-demand services – with their precise nature depending on the content genres and platforms involved.

7.4.11. For example, alongside conventional linear broadcast channels, we might see:

- The development of high value time-defined ownership pay on-demand services for premium content (e.g. for big movies, concerts, dramas and possibly comedies);
- Archive and niche material – a wide range of commercial on-demand models, with broadband distribution enabling exploitation of the “long tail” of content which would not until now have been viable for commercial release;
- 7-day (or similar) catch up services being offered either as a free extension of the broadcast service (possibly supported by advertisements) or as part of a bundle of services – e.g. as part of a premium pay channel package, with some experimentation around pay per view catch up for key programmes (along the lines of the US \$1.99 model) ;³³
- Some content released on-demand for permanent ownership (popular TV shows, close to their first release, children's content etc – very similar to the current DVD market, and possibly displacing some DVD sales).

New funding models

³³ Consumers may see catch-up as being simply an extension of their current free broadcast services. “Free” PVR/home storage capability in many homes will reduce the scope for commercial catch-up services – and commercial experiments so far appear to expect only modest charges for catch-up, if any at all. However, too extensive a free catch-up service could start to undermine the commercial value of the pay market for premium and near-to-first-run DVD/on-demand releases of popular programming.

- 7.4.12. There is a risk that, over the next ten years, traditional TV funding models could be seriously threatened. Advertiser funded TV is most obviously at risk. A PwC report commissioned by Ofcom³⁴ projects a relatively modest growth in total UK TV advertising over the next 10 years, of real compound growth of 2.2 per cent a year, compared with a historic average of 2.7 per cent. Within that total, PwC expects the main channels to see an almost flat revenue outlook (multi-channels in contrast, may see some increase). However there are major uncertainties in the market, the most significant being that of the effect of PVRs on viewing of television spot advertisements. Other industry analysis suggests that once PVR penetration reaches above 50 per cent of homes, and assuming most of the time-shifted advertisements are not viewed, then the value of each commercial spot could be significantly eroded. The premiums currently charged by the main networks for access to mass audiences would collapse. Advertisers would turn to different and more targeted advertising media – such as the links to sponsors provided by search engines such as Google. There is already some evidence of this, even in today's market.
- 7.4.13. We could therefore see a further shift in the funding balance in UK TV towards subscription and pay per view, encouraged by the development of on-demand services over broadband platforms. Alternatively, new broadband services could take advantage of new forms of advertising revenue streams. For example, Neil Blackley³⁵ recently noted that UK online advertising spending has now overtaken radio and billboard advertising in importance, and will soon overtake press advertising, too. Much of this is focused on highly targeted advertising placed around search requests.
- 7.4.14. New "free" content models may emerge. For example, content could be bundled with other broadband service features in a single monthly package, to encourage viewers to stay with a particular provider. The iTunes model, where relatively cheap content is used to encourage sales of consumer devices, could spread to the audio-visual world, especially for mobile devices.
- 7.4.15. Ofcom's PSB review carried out a scenario analysis of funding trends in the UK TV sector,³⁶ with the aim of examining the financial outlook for the main broadcasters. They concluded that:
- In a steady state scenario (i.e. largely an extrapolation from the current position) the terrestrial commercial broadcasters would all begin to struggle towards the end of the period (to 2012) as revenue growth slowed and costs rose. Profit margins and programme investment would be squeezed. Subscription-funded broadcasters, like Sky, would fare comparatively well in contrast;
 - In a downside scenario, in which digital take-up was faster than the steady state, and PVR usage reached high levels, advertising revenue will be more significantly affected as TV loses its attractiveness to

³⁴ Economic Analysis of the Advertising Market, PwC, December 2004

³⁵ Speech by Neil Blackley, Chair, Apax Partners Media Advisory Board, to the Advertising Association AGM, May 15, 2006

³⁶ Looking to the Future of Public Service Television Broadcasting, PSB Review, Ofcom, September 2004

advertisers. In this scenario, ITV experienced a steep loss of margin, and Channel 4 suffered the most, as sustaining its public service remit forced it into losses in the later part of the forecast period.

- 7.4.16. Both scenarios suggest some cause for concern about funding available for programme content – is it at risk? Fragmentation of audiences and revenues has also been cited by some as a cause for concern – it might adversely affect the scope for major investment in original UK content.
- 7.4.17. Both fears may occasionally be overstated, but they are real enough to keep on the policy agenda. If traditional television loses audiences and revenues, this will mainly be because other electronic media are gaining customers. Although they may not invest much in original content now, there is no reason to think that they will not do so in future. Nevertheless, there may be some risks – the costs of putting together production deals may rise as more parties have to be included in the negotiations, hence reducing the spend on actual content. Producers may be less able to raise finance from a range of investors for more risky and cutting edge projects – which single broadcasters in the past might have been more prepared to invest in. Investment decisions may be determined by global rather than by local consumer requirements.

New players in the market

New entrants

- 7.4.18. The development of on-demand and broadband offers the potential for many new and non-traditional content providers to enter the market, and also for a much greater internationalisation of the media sector than ever before:
- Non-traditional players could enter the electronic media market from related publishing sectors – for example newspaper publishers like the Guardian Media Group are already providing podcasts of audio material each week – as they can take advantage of economies of scope in the provision of some news and features-related content, and have a strong brand which could be effectively stretched into electronic media markets;
 - There are well-funded internet players, many of whom are already exploring new ways of distributing content – either as an advertiser-funded or as a paid for service. Google, Yahoo, AOL and others have strong brands, experience of operating successfully in the internet world, and big ambitions to extend their content operations globally.
- 7.4.19. How will these developments affect the prospects for UK-originated content? While radio is likely to remain a local medium, TV could be significantly affected, and there will be a tension here between local tastes and the economics of production. Although local tastes and preferences mean that consumers seem to prefer, all else equal, to watch similar quality local content rather than US or international content, the economics might work in favour of non-local material. If producers can recover their costs from a larger global market, they can offer programmes more cheaply to broadcasters in each national market. Although audiences may be slightly lower than those that would be attracted to local material, the costs of such

programming may be lower still. We might therefore see a move towards an increasing proportion of commercial high cost programming being targeted at global markets, with local programming increasingly focused on cheaper genres and localised versions of global formats.

- 7.4.20. While this may seem to be bad for UK content consumers, it might be good for the production sector, if – as so far has been the case – UK producers can take advantage of their competitive strengths in world markets. Moreover, the presence of a major publicly funded broadcaster in the UK market – the BBC – will act as a check on the extent to which its commercial rivals can offer acquired and co-produced material in their schedules and remain competitive.

Search and aggregation

- 7.4.21. An important development to monitor will be the relative success of organisations which offer search and aggregation of content services, as they may well hold the key to the ultimate shape of the sector in 10 years time.
- “Search” may be one model for the future. In a search-orientated world, consumers will use sophisticated search tools to help them find content they wish to consume from millions of sources around the world. Google, for example, has already launched a video search capability. There is a much reduced role for content broadcasters or packagers.
 - “Aggregation” represents a different model. In an aggregator-focused world, content aggregators have an important role to play in sorting through content, and guiding users to content they may find of interest – helping to make sense of a very complicated world. Yahoo is an example of this approach in the current online arena.
- 7.4.22. In practice, both models may co-exist and overlap. “Contextual” or “collaborative” search is now being developed to make the results of searches more useful for users, by understanding their tastes and preferences. Many online sites guide users to content based on the votes or ratings given to content by other users – a very democratic form of aggregation and selection. Against these developments, it is uncertain whether the role currently played by broadcasters – that of commissioning and then packaging content for their audiences – will still be seen as important by many consumers.³⁷

Overall market structure

- 7.4.23. Broadcasting markets today are highly concentrated, supplied by a small number of vertically integrated companies. The exception is the external (i.e. non-broadcaster) production sector, where entry barriers are low and

³⁷ John Batelle, in “The Search”, 2005, describes these new developments in search, and also notes the future importance of the so-called semantic web – in which each web page is tagged with metadata – a kind of code which will enable computers and search engines to understand more about what they are, what they are capable of doing, and how they might change over time. Tim Berners-Lee, founder of the web, is its main proponent. A combination of this sort of metadata, with more intelligent search tools, would produce a powerful step change in the effectiveness of search.

buyer power is high – leading to fragmentation. In principle, digital and broadband open up the prospect of many new entrants into the media market, and remove the need for intermediation between producers and consumers. In practice, various barriers to effective competition may exist:

- Some powerful bottlenecks will remain (even with broadband, there are still only a few alternative distribution platforms to use, and consumers face costs in switching between them);
- The rationale for vertical integration that exists today will remain – securing access to content, ensuring that content can get to the consumer, reducing transaction costs, effective planning etc;
- Costs of marketing and packaging content (and the risks involved) are likely to rise, putting a premium on scale and access to funding;
- Synergies from exploiting content and resources across media will drive companies to operate in related horizontal markets.

7.4.24. The leading market players in 2016 may be different from those we know today, but they are likely to be big, integrated and global in reach, operating across media, and involved in content production as well as packaging and distribution. This is not necessarily a problem – a few financially strong companies may be better placed to fund the investments needed in new platforms and high quality content than would many smaller companies in a more fragmented market. Even if we end up with a relatively concentrated sector, broadband may offer scope for smaller niche companies to emerge and prosper alongside the larger operators – able to use the net to find profitable markets which are not of interest to, or less easily exploited by, the bigger groups.

7.4.25. Two possible trends are worth noting separately:

7.4.26. Disintermediation: - that is, content producers by-passing broadcasters (or other content aggregators) to reach consumers directly. Broadband will make this a clear possibility, at least for those producers who have sufficiently attractive and marketable properties, or where key talent can rely on their existing reputations to attract consumers to any new material they release. The Hollywood studios may well decide to distribute their high profile films and TV programmes direct to consumers in future, for example, rather than via broadcasters or packagers. Some UK comedy artists are already experimenting with direct-to-consumer podcasts.

7.4.27. Customer relationship management (CRM); - a related development is likely to be a need for the provision of various aspects of CRM, which do not necessarily need to be bundled with content packaging and aggregation. For example, managing a new media platform, billing customers, providing effective service back-up, and understanding customer needs could be an important business proposition in its own right (and help provide a delivery and support service for many different content suppliers) – or it could be part of a more integrated and comprehensive content delivery and aggregation service.

Broadcaster challenges and strategies

- 7.4.28. One thing is certain, broadcasters will not be able to rely on their core networks as a source of sustainable growth over the next ten years. Rather, given the changes identified in the earlier sections, they will need to find ways of extending their brands and programme assets into the new digital and on-demand world. This is likely to include:
- Establishing a family or portfolio of digital channels, to sustain reach in the short to medium term (a strategy already pursued by the BBC, ITV and Channel 4, and now followed by Five);
 - A more radical shift towards on-demand access to programming. It is likely that the existing broadcasters with their substantial programme archives, will try to take a substantial share of this emerging market, and use it to extend from advertiser funding to direct payment;
 - Securing programme rights – broadcasters will expect to acquire rights to distribution of content in new media as well as on their conventional linear channels. Ownership of production resources could play a key part in a successful rights strategy;
 - Leveraging their brands and programme assets into related markets – established broadcasters will be able to take advantage of their existing channels to cross-promote new services and secure brand extension into related markets. Developments into electronic programme guides and search/navigation tools may be an important next step.

Observations and uncertainties

- 7.4.29. Broadcasting markets will be changing as fast as the technology and consumer developments that affect them.
- 7.4.30. Although we are still likely to have conventional television channels and radio stations, and some of the existing channel brands will remain, the market could also be populated by entirely new players. The balance of funding is likely to have further shifted, away from conventional spot TV advertising to new forms of more targeted advertising linked to internet and on-demand content, and towards direct payment for content.
- 7.4.31. New to the market will be a major influence from user-generated content and internet communities of interest.
- 7.4.32. The sector is still likely to feature a degree of vertical and horizontal integration – the economics of the sector favour companies who can control different stages of the value chain, create gateways or bottlenecks, but also exploit high cost content horizontally in different geographic and media markets. National boundaries may become less important – major players will be able to access consumers from outside each national territory via the internet – although direct relationships with consumers and advertisers on a significant scale are still likely to require companies to be based within the relevant target market.
- 7.4.33. Major uncertainties include:

- The battle between existing players in the market and new entrants – will 2016 still be dominated by current broadcasters and their existing brands, or will we be obtaining an increasing share of the content we consume from completely new players? How concentrated will the market be?
- The speed of decline of the conventional TV advertising market – is there likely to be a tipping point over the next 10 years, beyond which there will be sharp decline in the value of TV advertising, and a need to re-think the commercial free-to-air model?
- The extent to which the market can accommodate several competing platforms and content providers – the role of telcos, who will almost inevitably move into content provision, and the commercial sustainability of IPTV, as the newest platform, will be tested over the next 10 years;
- The extent to which we will still value content aggregation and packaging, as opposed to a much greater use of personalised search tools;
- The degree of globalisation of content production and packaging – the UK market should be large enough to sustain a thriving commercial local content business, but we may be caught up in wider international trends which have a profound influence on the mix of content offered, where it is produced, and the ownership of the companies supplying it.

7.4.34. Continued growth or saturation? Advertisers could find more effective routes to consumers, and people could decide to spend more of their leisure time in pursuit of other activities – both of which might reduce scope for further revenue growth. But new funding sources may emerge to fill the gaps left by the decline in conventional revenues.