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Digitalisation and the BBC: The net effect

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Abstract

Conventionally, academics and politicians frame the contribution of European public service broadcasting (PSB) in terms of its cultural and political significance. The underlying principle is that PSB is first and foremost about content output – its production, composition, distribution and consumption. This paper goes beyond an audience-centric approach, to argue that the uniqueness of PSB in Europe lies in its historical role of delivering public policy. Public service broadcasters can be relied on to respond to government calls for assistance in implementing key policies. The broadcasting history of Europe demonstrates the crucial intervention of public service broadcasters in pioneering and at times even rescuing policy initiatives.

The particular focus of this paper is on the role that the BBC plays in response to the emerging dynamics, and the challenge/opportunity that the Internet represents. While reporting on the latest developments surrounding the recent 2006 *White Paper* deciding the future of the BBC, the discussion is anchored in the broader framework of the long, critical involvement of the broadcaster in facilitating the implementation of the digitalisation policy in the UK.

► Introduction

Conventionally, academics and politicians frame the contribution of European public service broadcasting (PSB) in terms of its cultural and political significance. In serving the needs of a citizenry, PSB is chiefly conceptualised with reference to a construction of a national identity, the embodiment of a singular public sphere, notions of quality, editorial independence, diversity and universal access (Graham 1999, Graham & Davies 1997, Dahlgren 1995, Blumler 1992, Raboy 1996: 5-10, Ofcom 2004a: 4-9, Hargreaves Heap, 2005: 116-8). The underlying principle is that PSB is first and foremost about content output – its production, composition, distribution and consumption. Unsurprisingly, liberalisation and the consequent shift from the 'needs of the citizen' to the 'wants of the consumer' posed an unprecedented challenge to the relevance of these institutions.

This paper goes beyond an audience-centric approach, to argue that the uniqueness of PSB in Europe lies in its historical role of delivering public policy. Unlike commercial broadcasters, who may choose to ignore economic and other incentives, public service broadcasters, by statute and through policy networking, can be relied on to respond to government calls for assistance in implementing key policies. The broadcasting history of Europe demonstrates the crucial intervention of public service broadcasters in pioneering and at times even rescuing policy initiatives, ranging from the introduction of the very first broadcasts, to the current push towards digitalisation.

In this context, the rise of the Internet is understood as both a challenge and an opportunity that public service broadcasters in Europe cannot ignore. The particular focus of this paper is on the role

that the BBC plays in response to the emerging dynamics. While reporting on the latest developments surrounding the recent *White Paper* (DCMS, 2006) deciding the future of the BBC, the discussion is anchored in the broader framework of the long, critical involvement of the broadcaster in facilitating the implementation of the digitalisation policy in the UK.

► The BBC and public policy delivery

The establishment of the BBC in the 1920s gave birth to public service broadcasting, which was more than the outcome of technological inevitability or necessity (Banerjee & Seneviratne, 2005: 113; Burgelman, 1997). Reflecting prevailing notions of welfare provision, it was 'to a high degree, subject to political and economic negotiations which vary from country to country' (Burgelman, 1997). '[B]roadcasting – the transmitting of programmes to be heard simultaneously by an indefinitely large number of people – is a *social* invention, not a technical one. The capacity to broadcast existed long before it was recognised', as the prior use of 'wireless telegraphy' testifies (Seaton, 1981: 135; emphasis added). In other words, 'public broadcasting is a product of history rather than of theory' (Hamada, 1997: 37 as cited in Goodwin, 1998: 60).

It is precisely this history of sustained commitment to expressed socially and politically significant agendas that progressively cements BBC's institutional makeup as a policy delivery mechanism. A variety of educational projects, such as the 1975 Adult Literacy Project, attest this, but it is perhaps the pioneering and sustained support of new technologies that provide the most striking examples (Longley, 1975: Introduction, 73). A case in point is the early 1980s Computer Literacy Project, the outspoken awareness campaign launched by BBC Continuing Education in response to growing government and public concern and excitement about the potential of emerging ICTs. (Klontzas, 2005; Radcliffe & Salkeld, 1983).

The involvement of the BBC in delivering public policy has not always been successful, as its withdrawal from early Direct Broadcasting by Satellite (DBS) plans in the 1980s demonstrates (Goodwin, 1998: 61-3; Goodwin, 1997: 38-53). However, the point remains that its historical contribution has been catalytic in a vast array of policies that often had little to do with content provision.

In the convergence era this role becomes more prominent than ever before. In the drive towards analogue switch-off, now set to be phased-in between 2008 and 2012, near-universal take-up of digital television by the viewers is an essential precondition. In this context, government and industry alike accept that the BBC is indispensable in the promotion of digital penetration. If it was not for the BBC launching a Digital Audio Broadcast (DAB) service in 1995, the new radio transmission technology might have never taken off, despite public policymakers favouring it openly. The BBC drove digital radio out of the vicious circle produced by the reluctance of audiences, commercial broadcasters and electronic equipment manufacturers to make the first move. In 2002, within a couple of months following the eventual collapse of ITV Digital, the battered commercial free-to-air operator of the only Digital Terrestrial Television platform in the UK, the BBC came to the rescue with Freeview. Much to the relief of the government, this gesture put the digital switchover plans back on track (Adda & Ottaviani, 2005: 176-7). In immediate response to concerns expressed by Ofcom (Office of Communications) in 2004 over the feasibility of fulfilling the conditions for analogue switch off, the BBC announced plans to support 'Freesat', a satellite equivalent to Freeview, offering a free alternative to BSkyB's subscription funded monopoly satellite platform. In the drive towards digitalisation, the importance of a trusted household brand like the BBC backing a particular technology cannot be stressed enough. Nevertheless, putting confidence and resources into the new delivery technologies in not enough to get the audiences interested. This is where the

new range of digital-only television and radio services offered by the BBC can make a difference by making investing in digital reception equipment an appealing proposition for the consumer (Adda & Ottaviani, 2005: 198; Klontzas, 2004).

Up to this point, this discussion highlighted selected milestones in BBC's direct or indirect involvement in supporting expressed public policies. In the pre-convergence era this stance appeared to stem from a vague sense of mission to serve the public interest, derived from the broadcaster's remit as a public service broadcaster, as laid down in the Royal Charters, the 'public service contract' for British PSB (Coppens & Saeys, 2006: 269-71). From the late 1990s onwards, we observe a marked shift towards a prescriptive, concrete definition of BBC's role within the flexibility afforded by that contract. For one, the UK Digital Television Action Plan, which co-ordinates the efforts of a variety of stakeholders in achieving the timely implementation of the digital switchover, reserves a special role for the BBC. The appeal of its new digital services, coupled with its promotional leverage, is considered essential for the successful completion of the switchover process (Digital Television Action Plan, 2004: 3, 21). These sentiments are echoed in a range of important policy documents released in 2004 (Ofcom, 2004b: 4-7; Ofcom, 2004c: 79-80; DCMS, 2004c: 6, 10-2)

► The Internet

Early on, in mid-1990s, Director General of the BBC, John Birt recognised the potential of the Internet to become an integral part of the BBC's public service provision as the 'third arm' of broadcasting, to complement radio and television. Following a one-year pilot, the Secretary of State granted the BBC approval of its 'licence fee funded Online service to be put on a permanent footing as a core public service' in 1998, subject to *BBC Online*:

I. Acting as an essential resource offering wide ranging, unique content

II. Using the internet to forge a new relationship with licence fee payers and strengthen accountability

III. Providing a home for licence fee payers on the internet and acting as a trusted guide to the new media environment (DCMS, 2004a: 17-8)

The following year, 1999, the Davies Report on *The Future Funding of the BBC* affirms the value adding potential of *BBC Online* for digital audiences. This potential is associated with extending the broadcaster's reach and enhancing its existing services through further convergence between broadcasting and the Internet (DCMS, 1999: 41, 65). Over the years, *bbc.co.uk* grew to become the largest content-based UK website and one of the top five UK sites in terms of unique users, with average monthly reach of 10.6 million or 45.8% of the British online audience (BBC, 2005: 39-41). Centred on a combination of interactivity, branding and content, *BBC Online* exhibits ambitions to become a global brand. It places the Internet 'at the heart of a new mission in the digital era, summarised as "creativity, learning and citizenship", with an emphasis on adding value to other services, providing UK content in a market dominated by US material, and acting as a 'trusted guide' to the web (Hills & Michalis, 2000: 489-90).

By now, the scope of *BBC Online*'s portfolio has widened dramatically, cutting across a variety of spheres ranging from complementing its broadcasting services to promoting education, and encouraging participation and creativity. Some of the most notable services are:

Content on Demand:

Radio Player/Listen Again – It allows people to listen to a wide range of BBC content (around 1,000 programmes in January 2005) on the Internet for up to a week after the initial transmission. In the final quarter of 2004/2005 a total of 34 million hours of BBC Network Radio were listened to, representing 9 million requests pre month (BBC, 2005: 41, 74).

Podcasting – It offers radio programmes that can be downloaded to MP3 players for timeshifted, personal, portable listening. It is currently undergoing fairly limited trialling revealing high levels of demand. For example, *In Our Time*, Radio 4's weekly discussion on the history of ideas, received almost 380,000 requests for downloads in the first six months (BBC, 2005: 30, 41).

iMP (interactive Media Player)/MyBBCPlayer – It is planed to offer around 190 hours of television and 310 hours of radio, as well as local programming and some feature films on-demand over the Internet. It is currently undergoing small-scale trialling (BBC, 2005: 41).

Creative Archive Licence – In collaboration with Channel 4, Open University, British Film Institute, Teachers'TV within the context of the Creative Archive Licence Group, it aspires to open up public access to the very extensive BBC archive while protecting the intellectual property owners. Based on the principle the Creative Commons model, already in operation in the US, it would enable audiences to download BBC content for personal use, including editing it and using it to create new work, after successful completion of the trials (BBC, 2004b; BBC, 2005: 39).

Other content delivery technologies:

RSS (Really Simple Syndication) – In line with a growing number of news websites, the BBC implemented this technology that automatically identifies and delivers news items on the Internet that match the preferences of the user. It also allows external sites to carry BBC headlines (BBC, 2005: 39).

Internet guidance:

Webwise – A beginner's guide to the internet, constituting 'part of the BBC's commitment to help bridge the digital divide' (BBC, 2005: 55).

CBBC Search – 'A family-friendly search tool that lets children search content from the CBBC website and a selection of other BBC sites and external children's websites pre-approved by the BBC.' (BBC, 2005: 39)

Education:

Digital Curriculum – Amidst controversy with the commercial sector, this service, soon to be launched, is designed to support the curriculum by offering high-quality video, sound and interactive material, as 'one of the biggest formal learning initiatives' (Cave et al, 2004: 263; BBC, 2005: 35).

BBC Bitesize Revision – 'A very successful web-based revision service used by around twothirds of students and teachers. Its content is tailored for exams in England, Scotland, Wales and Northern Ireland.' (BBC, 2005: 55)

Participation and creativity:

Who Do You Think You Are? website – A family history website launched in conjunction with the BBC Two series which initiated people to genealogy (BBC, 2005: 41, 55).

WW2 People's War website – An archive of personal memories of World War Two, providing a gateway into the Internet for older people who contributed 20,000 stories (BBC, 2005: 41, 55).

Where I Live websites – It features community and user-generated local content promoting self-expression, expanded via *Digital Storytelling* and *Video Nation* (BBC, 2005: 75).

One Minute Movies – An initiative of the BBC films website providing people with guidance and the means to publish their own 60 seconds films online, while allowing audiences to comment on them and rate them. Since its launch in 2004, there have been more than 300 submissions and it regularly attracts more than 80,000 users per month (BBC, 2005: 39).

Taggerz – 'An animated drama, developed specifically for the web, about a gang of graffiti artists and the ethical choices they make. [...] It includes an animation tool which enables users to create their own content based on the characters in the story.' (BBC, 2005: 39)

Campaigns:

iCan/Action Network – A civic involvement web-based forum facilitating people in organising community campaigns via the Internet (BBC, 2005: 40).

Other social action campaigns, such as the two-year The Big Challenge, which was launched in 2004 aimed at reducing obesity. It drew 360,000 unique users per month and became a cross-platform project (BBC, 2005: 55).

BBC Online ventures are not without controversy though. To some they do not fit in the traditional PSB model of universally available information, education and entertainment. The appropriateness of public service broadcasters expanding into the Internet was challenged by the European Commission (1997: 29). The British Internet Publishers' Alliance (BIPA) expresses its concern and welcomes Graf's assessment that 'there are indications that BBC Online may have an adverse impact on competition ... by deterring investment by commercial operators' (DCMS, 2004a: 58; BIPA, 2004). It goes on to propose that all *BBC Online* content 'should be not only justified and defined but clearly distinctive from commercial offerings' (BIPA, 2005; Hills & Michalis, 2000: 477).

Some of these services attract more attention than others, particularly when they go beyond clearly being an extension to traditional BBC activities, and commercial interests are at stake. A pertinent example is the *Digital Curriculum*. BBC's proposal to spend £150 million of licence fee payers' money to set up the curriculum support service was met with severe reaction by educational publishers and IT suppliers, who claim that 'this will cost the UK publishing market £400 million and force a number of the BBC's rivals out of the market, reducing competition in an educationally and economically important sector' (Cave et al, 2004: 263).

The key concern here is that the BBC would waste public funds by offering a service that unnecessarily duplicates commercial efforts where there is no evidence of market failure. This is frowned upon in terms of UK and EU competition policy, which considers this inefficient for the BBC and the economy as a whole, with the Corporation driving commercial competitors out of the market it distorts. Some consider it unfair too, with the BBC using its powerful brand and abundant resources, free from commercial considerations. This line of argument is applied to a whole range of BBC's digital initiatives, not just *BBC Online*, and it is echoed in a variety of policy documents and reviews, released since the late 1990s, attempting to reframe the public service role of the BBC in the convergence era (Ofcom, 2004a; Ofcom, 2004b; Ofcom, 2004c; Ofcom, 2004d; DCMS, 2004c). Recent policy discourse is structured around the tension between this market distortion potential of the BBC, and the proactive role it is invited to play in promoting digitalisation. On the one hand, there are calls for it to be restrained to providing services that are distinctive from what the market can deliver. On the other, it is expected to lead the way into the digital era.

This duality is also found in the 2004 *Graf Report*, the outcome of the review of *BBC Online* complementing the almost concurrent reviews of BBC's digital radio and digital television – all feeding into the recent review on the BBC's charter, which expires at the end of 2006 (DCMS, 2004a). This report addresses the concerns of the commercial sector by acknowledging the adverse impact *BBC Online* may have on competition, and by insisting that:

BBC Online should be clearly distinctive from commercial offerings. The quality of a particular service, however high, does not constitute distinctiveness per se. [... I]n some cases, there seems little real difference between BBC Online and its commercial rivals, apart from advertising content.' (DCMS, 2004a: 10)

It proposes that the BBC should source at least 25% of its online content, excluding news, from external and/or independent suppliers. At the same time, however, the report acknowledges that the BBC, in conjunction with key stakeholders, has a significant role to play in promoting take-up of broadband and the Internet, countering the digital divide (ibid: 11-3). It should continue 'to act as a home and guide to the internet for those who require it' (ibid: 9). In anticipation of these developments perhaps, an earlier 2003 KPMG report, commissioned by the BBC, testifies that: the BBC was a significant factor in the growth of the Internet in the UK with positive implications for a whole range of business activities. (KPMG, 2003: 160-1)

The *Graf Report* questions the online role of the BBC as 'largely self-appointed [having] yet to be sufficiently tested for delivery or appropriateness as a legitimate role for a single public service broadcaster' (ibid: 9). It further expresses scepticism over whether there is indeed evidence that *BBC Online* had or will have significant impact in terms of stimulating Internet take-up (ibid: 15).

The BBC quickly responded to the report by committing itself to a new, revised remit, closely aligned to its public purposes, and by taking on board the recommendations put forward to contain the undesirable market impact of *BBC Online* (2004c). This response follows on the BBC's own *Building public value*, published earlier in 2004, where public value is defined as 'greater distinctiveness and creative conviction in BBC output, rejection of the derivative, a commitment everywhere to the original and the worthwhile' (2004a: 10). In both documents the BBC promises to consider the legitimate interests of a commercial audio-visual sector, as 'part of a wider ecology' (ibid). The public value theme permeates much of the debate that follows, culminating in the *2005 Green Paper* and the 2006 *White Paper* (DCMS, 2005: 97-8; DCMS, 2006: 7, 23, 28-33).

In the context of this paper, the key point however is that since the late 1990s the BBC (and not only) sees itself as being inextricably linked to the process of digitalisation. 'Building digital Britain' is understood as falling within the scope of the public service remit of the Corporation. Committing its resources and brand name in adopting, and proactively promoting the new digital technologies is considered crucial in bridging the digital divide and fulfilling the switchover conditions. Year 2004 signals a significant shift. Take-up of the Internet is now brought under the same banner as digitalisation of television and radio. In fact, the Internet is treated as just another digital platform, with references to 'BBC on demand', 'video-rich broadband', the Creative Archive and open source navigational tools finding their way into discussions previously reserved for BBC initiatives designed to promote digitalisation of the broadcast media (BBC, 2004a: 11). 'Driving digital UK' and driving 'online and broadband' now appear side-by-side under the same heading (BBC, 2004c: 11-2). This is in stark contrast to BBC's *Public service in an online world*, published only a year earlier, in 2003, where *BBC Online* is evaluated in terms of its three core requirements contained in the consent, granted in October 1998 by the Secretary of State for Culture, Media and Sport. This document highlights the importance of the Internet within the context of the BBC's public service remit as an additional

platform extending broadcasting in the digital era (BBC, 2003: 21-3). But it does not make any references at all to *BBC Online* as facilitating digitalisation.

Following on the 2005 Green Paper, the contribution the BBC is expected to make towards pushing digitalisation forward is cemented in the 2006 White Paper, which introduces a sixth, special purpose that all BBC services should aim to fulfil in the next Royal Charter period: 'Building digital Britain'. Primarily linked to digitalisation of broadcasting, its scope is extended to encompass 'new interactive and web-based services, as demand grows for new media, such as broadband' (DCMS, 2006: 22; DCMS, 2005: 5, 50). Internet and digital broadcasting are placed in the same framework as complementary areas in which the BBC is required to play a leading role.

The BBC has always helped the people of Britain get the most out of technological change. Throughout its history, the BBC has been instrumental in introducing people to new ways of receiving media services and encouraging their take-up. This does not apply solely to recent developments, for example the role of BBC Online in stimulating the use and take-up of the internet [...]. In fact, it goes to the very heart of the BBC's historical mission; it was the BBC and its services that drove many of the most fundamental changes in this country's broadcasting landscape – including the development and take-up of radio, and black and white, then colour television services.' (DCMS, 2006: 22)

In its *Annual Report* for 2004/2005, published in July 2005, the BBC embraces its emerging role. It assumes the responsibility for driving digital broadcasting and the Internet, and promises to 'focus on the benefits of digital to encourage the transition from analogue to digital and from narrowband to broadband' (2005: 16). While emphasising the success of its online services, reaching an average of 46% of the UK Internet audience during 2004/2005, it states clearly that *bbc.co.uk* does more than serve the BBC's five purposes prescribed in the current Royal Charter. It goes beyond promoting Internet use. It does not only aim to 'develop a deeper relationship with licence fee payers and to strengthen BBC accountability' by being a starting point on the Internet and guide to the medium. It is also 'a leader in promoting take-up of the internet' (2005: 16, 39).

► Conclusion

The BBC has always played an important role in facilitating the implementation of, and at times rescuing, public policies in a wide and diverse range of domains, not least by committing its resources and reputation to promoting the penetration of new communications technologies. Contrary to what one might expect from a public service broadcaster, this involvement often does not strictly concern content, as the examples of the *Computer Literacy Project* in the early 1980s or the current digitalisation strategy demonstrate. These initiatives often stemmed from, or were justified on the basis of particular interpretations by the BBC itself of a loosely defined public service remit. This can lead to the BBC assuming an unwelcome over-expansion by some of its role, to the detriment of the development of a vibrant commercial sector. The recent policy documents highlight the adverse impact this formidable behaviour might have on competition, and the *2006 White Paper* ventures to contain those ill-effects by introducing 'service licences' and the Public Value Test, to be applied to 'all [BBC] proposals for significant change to existing services or for new services' (DCMS, 2006: 7, 28).

Breaking with the past, over the last six or seven years, public policy debate has been seeking to lay down a more explicit, prescriptive framework for the contribution of the BBC in promoting public policy. This becomes evident from the outset in the engagement of the BBC in the process of digitalisation, starting with its participation in the *Digital Television Action Plan*. The whole range of documents released by Ofcom and the Department of Culture, Media and Sport (DCMS) in 2004

affirm the premise that the BBC should be instrumental in driving digital. The prescriptiveness in this approach, soon to inform the forthcoming ten-year Royal Charter, becomes clearer with the advent of the new, sixth purpose for the BBC in the 2006 White Paper. 'Building digital Britain' (DCMS, 2006: 6). As the dividing line between digital broadcasting and the Internet becomes increasingly blurred, the BBC can be expected to continue developing a significant Internet presence in the name of its updated public service remit. Only from now on, its role is less 'self-appointed' (cf. DCMS, 2004a: 9) or unrestricted. Once again, it becomes clear that the BBC is more than just a broadcaster. In terms of public policy implementation, first and foremost it is a public service institution. ■

► Bibliography

Adda, J. and M. Ottaviani (2005) "The transition to digital television". *Economic Policy*, January, pp. 159–209.

Banerjee, I. and K. Seneviratne (eds) (2005) *Public Service Broadcasting: A best practices sourcebook.* UNESCO.

BBC (2003) Public service in an online world. London: BBC.

BBC (2004a) Building public value: Renewing the BBC for a digital world. London: BBC.

BBC (2004b) BBC Creative Archive pioneers new approach to public access rights in digital age (Press release), 26 May.

<http://www.bbc.co.uk/print/pressoffice/pressreleases/stories/2004/05_may/26/creative_archive .shtml> (last visited: 15/10/04).

BBC (2004c) The response by the Board of Governors of the BBC to the Secretary of State's review of the bbc.co.uk conducted by Philip Graf. London: BBC.

BBC (2005) Annual Report 2004-05. London: BBC.

BIPA (2004) Response to the Graf Review of BBC Online, October. <http://www.bipa.co.uk/getArticle.php?ID=316> (last visited: 10/2/06).

BIPA (2005) Response to Review of the BBC's Royal Charter, 31 May. http://www.bipa.co.uk/getArticle.php?ID=325 (last visited: 10/2/06).

Blumler, J. G. (ed) (1992) Television and the public interest: Vulnerable values in West European broadcasting. London: Sage.

Burgelman, J.-C. (1997) *The future of the welfare state and its challenges for (communication) policy*, October. < http://ucsub.colorado.edu/~weinberr/Burgel1.html> (last visited: 4/9/98).

Cave, M., R. Collins and P. Crowther (2004) 'Regulating the BBC'. *Telecommunications Policy*, Vol. 28, pp. 249-72. Elsevier.

Coppens, T. and F. Saeys (2006) 'Enforcing performance: new approaches to govern public service broadcasting'. *Media Culture and Society*, Vol. 28(2): 261-284. London: Sage.

Dahlgren, P. (1995) Television and the public sphere: Citizenship, democracy and the media. London: Sage.

DCMS (1999) The Future Funding of the BBC. Report of the Independent Review Panel (Garyn Davies Report). London: HMSO.

DCMS (2004a) Independent Review of BBC Online (Philip Graf Report), 5 July.

<http://www.culture.gov.uk/NR/rdonlyres/e4tkl4uj3aq6helvmgfywt3jaobyqkrnybdqvvguenu7to4p nhxh7j55jqiswsidhadjxajoqiut7grxrgv2fdhepkd/BBCOnlinereview.pdf> (last visited: 13/10/04).

DCMS (2004b) Independent Review of the BBC's Digital Radio Services (Tim Gardam Report), October 2004. http://www.culture.gov.uk/NR/rdonlyres/eztbxgsfcyaed2aaxyf2ptvvpuu6bre54ummyh2r2whxaqy2jft4cnwodkakyxqcrl26jnv5mmc7h7duuggr4elk7hf/FullReportIndependentReviewoftheBBCsDigitalRadioServices.pdf> (last visited: 20/10/04).

DCMS (2004c) Independent Review of the BBC's Digital Television Services (Patrick Barwise Report), 13 October.

<http://www.culture.gov.uk/NR/rdonlyres/et4ih4gay653hxfopei6kgyclw24vaymjtr3os3bsknmx753 ifjvoj2q5nfw542r5qvbnujgwpid246bpy3glukkxtd/IndependentReviewoftheBBCsDigitalTelevisionSe rvices.pdf> (last visited: 20/10/04).

DCMS (2005) Review of the BBC's Royal Charter: A strong BBC, independent of government (Green Paper). Norwich: HMSO.

DCMS (2006) A public service for all: the BBC in the digital age (White Paper). Norwich: HMSO, Cm 6763.

Digital Television Action Plan (2004), Version 11, July.

<http://www.digitaltelevision.gov.uk/pdf_documents/publications/11_Action_Plan_July2004.pdf > (last visited: 06/10/04).

European Commission (1997) Green Paper on the Convergence of the Telecommunications, Media and Information Technology Sectors, and the Implications for Regulation. Towards an Information Society Approach. COM(1997)623 final, 3 December. Brussels: European Commission.

Goodwin, P. (1997) Television under the Tories: Broadcasting policy 1979-1997. London: BFI.

Goodwin, P. (1998) 'Public service broadcasting and new media technology: What the BBC has done and what it should have done'. *Javnost/The Public*, Vol. 4(4): 59-74.

Graham, A. (1999) 'Broadcasting in the multimedia age', in Graham, A. et al (eds), *Public purposes in broadcasting: Funding the BBC*. Luton: University of Luton Press.

Graham, A. and G. Davies (1997) Broadcasting, society and policy in the multimedia age. Luton: John Libbey Media.

Hargreaves Heap, S. P. (2005) 'Television in a digital age: What role for public service broadcasting?'. *Economic Policy*, January, pp. 111-57.

Hills, J. and M. Michalis (2000) "The Internet: A challenge to public service broadcasting". *Gazette*, Vol. 62(6). London: Sage, pp. 477-93

Klontzas, M. (2004) 'PSB and the Delivery of Public Policy in Europe: Building digital Britain and the BBC', *New Directions in European Media Conference*, European Sociological Association/Media Research Network, Aristotle University of Thessaloniki, Thessaloniki, 5 - 7 November (unpublished).

Klontzas, M. (2005) 'PSB and the delivery of public policy in the pre-convergence era: The BBC Computer Literacy Project', *The History of the Media Conference*, University of London, Senate House, London, 29 June - 1 July (unpublished).

KPMG (2003) Market Impact Assessment of BBC's Online Service – Final Report (commissioned by the BBC), 24 June. http://www.bbc.co.uk/info/policies/pdf/kpmg_bbconline_fullreport.pdf (last visited: 15/10/04).

Longley, C. (ed) (1975) BBC Adult Literacy Handbook. London: BBC.

Ofcom (2004a) Ofcom review of public service television broadcasting: Phase 1 – Is television special?, 21 April. http://www.ofcom.org.uk/consultations/past/psb/psb.pdf?a=87101 (last visited: 06/10/2004).

Ofcom (2004b) Assessment of the Market Impact of the BBC's New Digital TV and Radio Services, 13 October.

<http://www.ofcom.org.uk/codes_guidelines/broadcasting/tv/psb_review/reports/bbcnews.pdf> (last visited: 13/10/2004).

Ofcom (2004c) Ofcom review of public service television broadcasting: Phase 2 – Meeting the digital challenge, September. http://www.ofcom.org.uk/consultations/current/psb2/psb_phase2.pdf (last visited: 09/10/2004).

Ofcom (2004d) Driving digital switchover: A report to the Secretary of State, 5 April. http://www.ofcom.org.uk/research/dso_report/?a=87101 (last visited: 15/10/04).

Raboy, M. (1996) 'Introduction: Public service broadcasting in the context of globalization', in M. Raboy (ed), *Public broadcasting for the 21st century*. Luton: University of Luton Press.

Radcliffe, J. and R. Salkeld (eds) (1983) *Towards computer literacy: The BBC Computer Literacy Project*. London: BBC Education.

Seaton, J. (1981) 'Reith and the denial of politics', in Curran, J. & J. Seaton (eds), *Power without responsibility: The press and broadcasting in Britain.* Glasgow: Fontana.