

Submission No. 45

**House of Representatives Standing Committee on
Communications, Information Technology and the Arts**

Inquiry into the Uptake of Digital Television in Australia

Submission from the Australian Broadcasting Corporation
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ABC Submission to the House of Representatives Standing Committee on Communications, Information Technology and the Arts Inquiry into the Uptake of Digital Television in Australia

Introduction

The ABC welcomes the opportunity to contribute to the Standing Committee's inquiry into the uptake of digital television. Within current legislative restrictions, the ABC has actively developed innovative content and services to promote the uptake of digital television as well as ensuring that ABC digital television services are now available to over 95% of Australian households. However, the Corporation has long held the view that the current legislative framework for digital television severely impacts on broadcasters' ability to provide the most engaging content and services for audiences and that this has led directly to the slow uptake of digital television. Greater program choice has been a significant factor in the adoption of digital television overseas, particularly in Europe.

The ABC supports the inquiry focussing on this important issue. The Corporation hopes that the inquiry will lead to some much-needed changes to the legislation to permit the broadcasting industry to apply its creative expertise to the challenge of providing sufficient incentives to stimulate a mass uptake of digital television.

ABC digital services

In the four years since the commencement of free to air digital television broadcasting in Australia, the ABC has sought to provide a digital television experience that extends beyond a simulcast of its analog television broadcasts in order to promote the adoption of digital television by viewers.

Australia's first digital terrestrial multichannel service, *ABC Kids*, was launched in August 2001 followed in November 2001 by a second multichannel service, *Fly*. Unfortunately, as these innovative services were launched with non-recurrent funding, they were closed in June 2003, following an unsuccessful approach to Government for additional funding for the channels.

In August 2004, the ABC Board approved a proposal and an associated business case for the establishment of a new digital channel, ABC2. The Board determined that the ABC should participate actively in the digital media environment despite its funding constraints. ABC2 launched in March 2005 as a less costly operation than its predecessors as a result of its format and use of digital automation systems and processes. The Corporation has identified a sustainable basis of funding for the channel.

An innovative component of ABC2 is the use of content created for both broadband and broadcast television output. For example, audiences are able to see programs (such as the regional news program *Australia Wide*) on ABC2 or watch them as video on demand whenever they choose on the companion ABC Broadband service online at abc.net.au/broadband/.

In late 2002, the ABC began transmitting the *dig* Internet radio service as an audio sideband to its digital television broadcasts; in March 2005, the Corporation added *dig jazz* as a second audio sideband.

The Corporation is also actively experimenting with interactive television content. It has been developing an interactive electronic program guide (EPG) for digital terrestrial television in consultation with other free-to-air broadcasters, and is providing a text-based news service for Broadcast Australia's trial datacasting service, Digital Forty Four. The ABC created Australia's first interactive television documentaries, *Long Way to the Top: Live in Concert iTV* and *Love is in the Air*. The nation's first multi-platform drama, *Fat Cow Motel*, was carried on ABC Television and ABC Online. The Corporation has also trialled interactive coverage of the 2004 Federal Election and provides interactive supplementary content for the landmark current affairs programs *Four Corners* through ABC Online.

Audience research conducted by the ABC of the interactive audiences for *Long Way to the Top* and also the earlier *Walking with Beasts* showed that almost the entire audience for both programs were interested in viewing additional interactive documentary programs.

Beginning in the 1 July 2003, the ABC began transmitting a high definition television (HDTV) version of some of its programming, meeting or exceeding the legislative requirement that it transmit 1,040 hours of HDTV content each year. While complying with the legislative requirement, the ABC does not believe that HDTV is a major driver in the uptake of digital television in Australia. This is supported by evidence from Europe, the most mature digital television market in the world, which has little or no HDTV broadcasting.

Options for further encouraging consumer interest in the uptake of digital television

Greater Program Choice

The key to encouraging consumer interest in the uptake of digital television is to provide audiences with greater choice through additional services and new content that is interesting and engaging.

Evidence from overseas supports the proposition that greater program choice is as significant a factor, if not more significant, than image quality in encouraging consumers to purchase digital television equipment. Europe has little or no HDTV broadcasting. Instead, take-up has been most significantly influenced by increased choice.

The UK, where nearly six in ten homes have access to digital television, provides a useful example.¹ Until recently, the UK television market was characterised by a relatively small number of free-to-air channels and a significant proportion of the population who were unlikely to ever subscribe to a pay TV service. This directly parallels the current state of the Australian television market.² The rapid growth of the Freeview multichannel service, which provides audiences with access to more than 30 channels, has demonstrated a public appetite for increased viewing options. In the two-and-a-half years since its October 2002 launch, Freeview's audience has grown to 4.59 million UK homes. An analysis of the UK's progress towards digital switchover by the communications regulator, Ofcom, identified increasing channel choices and low cost receiver units as key reasons for Freeview's success.³

Consumer response to additional digital television services demonstrates that a similar appetite for greater viewer choice exists in the free-to-air market in Australia. For example, recent evidence from Tasmania suggests that the introduction of an additional digital-only commercial station, Tasmanian Digital Television, into the Hobart market has resulted in a significantly higher take-up rate for digital television than elsewhere in the country.⁴ At the same time, the Australian community is exhibiting greater levels of mixed media consumption. In this light, the Corporation believes the Australian community would respond positively to the increased convenience and diversity of additional public broadcaster multichannels.

Role for the ABC in encouraging digital television

The ABC can be a critical factor in the growth of a critical mass in digital television uptake in Australia.

As the national public broadcaster, the ABC can contribute to the growth of critical mass in three ways. First, the ABC as a digital public broadcaster can be a catalyst for industry growth by encouraging audience uptake and developing an innovative and enthusiastic free to air digital television environment. That in turn can allow commercial players including other broadcasters, independent producers, receiver manufacturers and retailers to develop viable business models. In particular, the ABC can provide digital television content and therefore audience interest in taking up digital services.

¹ Jason Deans. "Most UK homes now have digital TV". *Media Guardian*, 30 March 2005. Online: <<http://media.guardian.co.uk/broadcast/story/074931448316,00.html>>.

² According to Roy Morgan Research, the percentage of Australians over the age of 14 who say they 'probably won't ever subscribe' to a pay television service has remained relatively constant at 47% of the population over the period from March 2000 to December 2003. See Roy Morgan Research, *Digital Pay TV seeks subscribers*, Article No.320, 3 May 2004, accessed 23 July 2004, <<http://www.roymorgan.com/news/press-releases/2004/320/>>.

³ See, in particular, par. 3.12 of Ofcom, *Driving Digital Switchover: A report to the Secretary of State*, 5 April 2004. Online: <http://www.ofcom.org.uk/research/dso_report/section3> Accessed 19 July 2004.

⁴ Michael Stedman. "Northern homes brace for digital TV revolution", *The Examiner*, 10 June 2004, p.13.

Second, the ABC is also in the position of educating audiences about digital, especially with regard to enquiries about ABC2. The recent launch of ABC2 has sparked a number of articles in the press regarding digital television, including the services available, current receivers and availability across the country. This has resulted in many inquiries to the ABC regarding reception, coverage and receiver equipment.

Third, the ABC can contribute a research and development (R&D) function in relation to digital content development. This is a traditional innovative role played by the ABC in the development of new program content throughout the history of Australian television. However, this R&D function can only be truly effective if the ABC is given the legislative freedom to explore all program genre and additional digital service components. The ABC is currently restricted in this area.

The commitment of public broadcasters to demonstrate the potential of the technology can unfetter the commercial industry from its current risk adverse course. The ABC as a public broadcaster can play a key role in advancing the implementation of digital broadcasting policy. The Corporation is uniquely placed to create an environment that will stimulate consumer interest and mitigate consumer risk. However, the ABC needs the ability to strengthen and enhance existing multichannel services with original content and to develop new multichannel services. In so doing the ABC can also clear the way for further investment by industry.

Legislative Restrictions

The ABC believes that Australia's digital television regime has to date provided relatively little incentive for viewers to adopt digital television, a fact reflected in their unenthusiastic response to the technology. On current trends, it seems unlikely that analog broadcasting will be able to be switched off until a considerable time after the end of the eight-year simulcast period anticipated in the *Broadcasting Services Act 1992* ("BSA").⁵

Australia's legislative choices to date in relation to digital television have been predicated on the assumption that audiences will be drawn to the higher-quality images and sound provided by HDTV. While picture and sound quality are expected to be drivers of digital television take-up, they are likely to be only two of a range of drivers. For example, anecdotal evidence from retailers suggests that the increasing popularity of widescreen televisions – driven mainly by the popularity of DVD players – has propelled a significant proportion of digital television receiver sales to date.

⁵ Under paragraph 6(3)(c)(ii) of Schedule 4 of the *Broadcasting Services Act 1992*, the simulcast period during which both analog and digital television signals must be transmitted in a given area is required to run "for 8 years or for such longer period as is prescribed".

Unfortunately, the current legislative framework in Australia prevents the ABC from providing the audience with greater choice in a number of ways. The ABC has long maintained that this is the primary reason for lower-than-anticipated levels of consumer uptake of digital television receivers to date.

The key content restrictions that affect broadcasters' ability to provide additional and engaging content services for audiences relate to genres of programming on the ABC's multichannel services, enhanced programming and datacasting.

Multichannelling genre restrictions

The ABC's ability to offer multichannel services is currently constrained by the genre restrictions applying to the content of national broadcaster multichannels under subclause 5A(2) of the Schedule 4 of the BSA.⁶ The ABC proposes that these genre restrictions be lifted to allow public broadcasters to provide the Australian public with greater access to the full range of publicly funded programs. These restrictions have a number of consequences:

1. They prevent the ABC from utilising much of its existing archive material and time-shifting current material from the ABC main channel. Many of these programs would be popular with audiences and could be provided cost-effectively. The genre restrictions remove this affordable programming option and therefore present a direct financial impediment to providing multichannel services.
2. They prevent the ABC from exploiting its particular strengths and program expertise in areas such as national news, national current affairs, drama, comedy, sport and entertainment. These genres are popular with audiences and could encourage digital uptake.

In particular, the ABC is inhibited in its ability to transmit national news and current affairs programming on a multichannel service – although the list of permissible genres includes regional news and current affairs⁷ and international news.⁸ The ABC believes that the ability to carry national news and current affairs on multichannel services is a crucial element of its ability to provide wide public access to the full range of the ABC's programming.

Similarly, the ABC is permitted to transmit "an occasional stand-alone drama program" on multichannel services,⁹ but not drama series. This prevents the ABC from

⁶ Permitted multichannel genres are regional; education; science; religious; health; arts; culture; financial, market or business information bulletins; Parliamentary; public policy; foreign language news; multicultural or Indigenous; children's; history; ABC-produced international news; rural; information; stand-alone international social documentary; subtitled foreign language; stand-alone drama and incidental material.

⁷ *Broadcasting Services Act 1992*, par.5A(2)(a).

⁸ *Broadcasting Services Act 1992*, par.5A(2)(o).

⁹ *Broadcasting Services Act 1992*, par.5A(2)(u).

rebroadcasting older, landmark Australian drama programs and from making the most effective use of the vast resource that is the ABC archives.

3. By restricting the scope of multichannel services to a list of specific genres, they undermine one of the main benefits of digital television to audiences, namely the provision of greater choice and diversity of programs and services. For example, the ABC has already received requests from audience members for ABC2 to carry currently prohibited programs, such as archival Australian drama series, sports, and a daily news program.

Recommendation

The genre restrictions currently applying to national broadcaster multichannelling should be lifted to allow the ABC to broadcast programs in any genre in order to provide appealing content to audiences and encourage digital take-up.

Enhanced program restrictions

Under subclause 19(14) of Schedule 4 of the BSA, broadcasters are permitted to provide digital program enhancements, such as additional camera angles and user-selectable score information for a sporting event. While such enhanced programming would provide a further point of difference between digital and analog television, it is subject to significant restrictions. The legislation was framed at a time when there was little understanding in the industry, whether in Australia or overseas, of the kinds of interactivity that would actually appeal to viewers. To date, Australian broadcasters have provided relatively few program enhancements.

The key restrictions are:

1. In accordance with paragraph 19(14)(i) of Schedule 4, program enhancements must be "closely and directly linked to the subject matter of the primary program". This prevents general channel enhancements, such as news headlines or weather information that viewers can elect to bring up or dismiss from their screens when they choose. Such channel enhancements can then only be provided under the restrictive datacasting provisions in Schedule 6 of the Act (the problems associated with this are set out below). Given the limitations placed on the bandwidth for additional services by the existing "triplecast" requirements, it is likely that such enhancements would be small interactive items transmitted in parallel to broadcast television channels.
2. Program enhancements must be simultaneous with the primary program, which prevents the option of complementary information following a program. Research from BBC Interactive TV shows that many enhancements are more appropriately

shown after the program, when they do not distract audiences from the main narrative.¹⁰

Recommendation

The enhanced program restrictions should be lifted to allow broadcasters to provide interactive programs, which will appeal to audiences and encourage digital take-up.

Datacasting

The provision of free-to-air interactive television services in Australia are largely defined in the datacasting regime set out in Schedule 6 of the BSA. As interactivity is only possible with digital television, it provides a clear point of differentiation from analog television and is a potential driver of free-to-air digital television uptake. Interactivity is already intrinsic to the consumer appeal of some subscription digital television channels.

The datacasting provisions that apply to free-to-air services impose heavy restrictions on the kinds of general interactive services the ABC and other datacasters can provide. In particular, datacasting services are essentially prohibited from carrying video content in most genres, and are severely restricted in the duration of video material that can be carried in the few, primarily news-related genres, that they are permitted to carry. As a result, datacasters will be forced to design its free-to-air interactive services to fit into the very tightly-defined framework set out in the legislation rather than to fit audience needs and interests.

The drafting of the datacasting regime was primarily informed by a desire to prevent datacasting services from becoming de facto broadcasting services, rather than any study of audience needs and interests. Consequently, the kinds of services envisaged in the legislation bear little resemblance to the types of interactive television services that audiences are likely to want and use. Research from overseas shows that it is important for broadcasters to take a flexible approach to interactivity and to respond to changing audience consumption patterns.

For example, the BBC has found that, while some of its early interactive initiatives were effective, others were not; some applications worked only with particular genres or audience types.¹¹ Determining the types of application that will prove relevant to particular audiences

¹⁰ Presentation by Emma Somerville, Head of Interactive TV, BBC, February 2005. See also <<http://www.bbc.co.uk/commissioning/interactive/advice.shtml>>.

¹¹ See <<http://www.bbc.co.uk/commissioning/interactive/index.shtml>>, where the BBC explains that their early interactive experiments have evolved considerably in response to audience needs and the types of interactive features are being refined according to which approaches work with particular genres and audiences.

is a matter of experimentation, which requires flexibility. The BBC has ultimately responded to audience needs by concentrating on developing those applications which seem to be most appealing in each case—offering both “24/7” whole-of-channel enhancements, as well as the flexible kind of complementary program content described above. The Australian industry does not have this flexibility because of the artificial restrictions imposed by the datacasting provisions.

The Australian Broadcasting Authority (ABA) has allocated two channels for exclusive datacasting services throughout Australia. However, to date these channels in most areas have not been utilised. It would appear that the industry’s lack of enthusiasm for datacasting is directly attributable to the restrictions on the scope of datacasting services imposed in Schedule 6 of the BSA.

On this basis, it would seem that the introduction of datacasting as a separate activity from broadcasting has thus far been unsuccessful. Further, the decision to retain two unused datacasting channels in all metropolitan and regional areas cannot be regarded as an efficient use of broadcasting services bands spectrum. As the ABC has argued elsewhere, it would more appropriate for these channels to were reallocated as additional digital terrestrial television channels to eliminate or reduce spectrum congestion issues in particular markets.¹²

If the separate category of stand-alone datacasting services was eliminated, much of the rationale for the current restrictions on datacasting services would no longer apply. Such a relaxation of the datacasting restrictions would allow broadcasters to experiment fully with interactive services to determine the type of service that will appeal to the Australian viewing public and in the process contribute to digital uptake.

Recommendation

The category of stand-alone datacasting services that are not linked to a broadcasting service should be eliminated.

Once this has happened, the datacasting restrictions should be lifted to allow the ABC and other broadcasters to provide interactive services related to broadcast content in a flexible and responsive way that best meets audience needs.

¹² ABC. *Australian Broadcasting Corporation submission to the DCITA Review of the Broadcasting Services Band Spectrum: Identification and Structural Efficiency*. January 2005.

Technological issues relevant to the uptake of digital television

Simulcast Requirements

The requirement to simulcast HDTV and SDTV versions of programs for a certain number of hours each year significantly reduces the bandwidth available for broadcasters to use for additional content services, such as multichannels or interactive content. It also restricts the quality of the HD output itself. The difficulty of mode switching and dynamically allocating bandwidth means that the bandwidth allocated to the ABC's HD channel (channel 20) is dedicated on a permanent basis and is therefore not available for other services at any time. Although the HDTV quota only applies for a fixed number of hours each year, its effect is a permanent one and out of proportion to the level of the community's interest in HDTV.

Currently broadcasters are required to transmit both HD and SD versions of any programming transmitted in HD mode. This is a wasteful use of spectrum. If the need to transmit both signals could be reduced to one, some of this wastage would be eliminated. Currently, HD receivers are able to decode both SD and HD signals and convert their output for display on both SD and HD television screens. By comparison, SD receivers need only have the ability to decode SD signals, with the result that there is an ongoing practical requirement for all HD programming to be simulcast in SD mode.

Now that digital television receivers are established in the consumer marketplace, decoder chip prices have fallen. It is now inexpensive to incorporate HD decoder chips in affordable digital set-top boxes. Revisiting the standards for digital receivers to require all receivers to have HD-capable decoders would provide the opportunity to plan for the long-term removal of the HD-SD simulcast requirement.

Need for Test and Conformance Centre

With digital television, there is a need for digital receivers and broadcasting streams to meet a set of consistent and standard requirements in order for all digital services to be readily accessed by all viewers using a digital television receiver. Testing and conformance is essential to maintain compatibility between broadcast content and receivers. In recognition of this need, the industry has been proposing the development of a Test and Conformance Centre to ensure all receivers work as intended in the Australian market. A Test and Conformance Centre would allow for the introduction of an Australian digital television compliance tick which would assist in supporting consumer confidence and encourage broadcasters to expand their creative thinking about the potential that digital only services offer for new business models. The Centre would also allow broadcasters to test new digital broadcast streams before commencing transmission to the public.

Digital television receivers also have the capacity to be provided with updated software via Over the Air Downloads (OAD). OADs are recommended for ensuring continuity of digital service as well as minimal consumer disruption and cost. This technology has been successfully demonstrated in Australia and has been delivered in the United Kingdom for a number of years by the BBC on behalf of the free to air digital industry. The delivery of OADs is a direct contribution to the development of DTV because it removes an element of cost and risk for both viewers and manufacturers associated with introduction of new receivers with enhanced digital capabilities in the market.

The ABC acknowledges that a number of issues need to be resolved in order to introduce a Test and Conformance Centre. Government support in the resolution of issues is necessary to move forward with the development of a Test and Conformance Centre. This support would greatly assist the development of a robust free to air digital television industry in Australia for the future.

Resolution of current issues with receivers and broadcast transport streams is necessary to instil confidence in consumers and also in the manufacturing and retail industry regarding digital television receivers. Anecdotal evidence suggests that the retail industry has many digital receivers returned due to difficulties with reception, use of unsuitable antennas and other issues. Industry issues need strong leadership and coordination from Government in order to make digital terrestrial television a high-value proposition for consumers and drive the consumer transition to digital television.

Recommendation

That the standards for digital receivers be revisited so that all boxes are required to decode both SD and HD signals, thus eliminating the need for simulcasting in the longer term.

That the government provide support for the development of a Test and Conformance Centre to maintain compatibility between broadcast content and receivers for free to air digital services and support consumer and industry confidence.

Clarification of analog switch-off date

The ABC believes that the date for analog television switch-off should be clarified. Currently, there is no expectation within the broadcasting industry that the simulcast period will run for eight years; instead, it is widely anticipated that an unspecified, but longer period will be required. This absence of a fixed timetable for analog switch-off further reduces incentives for consumers to consider purchasing digital receiver equipment.

Currently more analog television receivers than digital receivers are sold annually. This is adding to the overall Australian analog receiver population that needs to be replaced or

augmented by the purchase of a digital television receiver and is reducing the likelihood of an early switch-off date for analog television.

An appropriate role for Government is to take leadership in working with all sectors of industry to develop a formal time frame, strategy and milestones for the switch-off of analog television services. This strategy could consider, for example, the possibility of switching-off analog services on a market-by-market basis. Such a position has been proposed to government in the United Kingdom by the regulator Ofcom.¹³

The determination of analog switch-off date, even one that is relatively remote, would increase pressure on consumers to consider purchasing digital receiver equipment. Such a decision would necessarily require the Government to take an active role in encouraging Australians to adopt digital television to ensure that switch-off occurs by the intended date.

In addition, certainty about the date on which analog transmissions will cease would allow broadcasters and transmission service providers to make more effective decisions about whether existing analog equipment should be replaced or refurbished to extend its life.

Recommendation

That the Government take a leadership role in working with all sectors of industry to develop a formal time frame, strategy and milestones for the switch-off of analog television services.

ABC rollout of digital television

The ABC provides a national digital terrestrial television broadcasting service in accordance with the provisions of Schedule 4 of the BSA through its expanding digital transmitter network. The Corporation's digital television signals are now broadcast to 95.57% of the Australian population using 131 transmitters across the country.

Transmission rollout

In accordance with its obligations under the BSA, the ABC commenced digital television broadcasts in the five metropolitan licence areas (Sydney, Melbourne, Brisbane, Perth and Adelaide) on 1 January 2001, and in all regional areas by 1 January 2004.

¹³ See Ofcom, *Ofcom Spectrum Management Update: Technical Planning for Digital Switchover Around the UK*, 9 February 2005. Online < <http://www.ofcom.org.uk/research/tv/reports/dsoind/smup/> > Accessed 5 May 2005

The Corporation is now in the process of rolling out in-fill transmitters to meet its obligation under paragraph 19(3)(c) of Schedule 4 of the BSA to achieve the same level of coverage and potential reception quality in each licence area as is provided by its existing analog services. The BSA requires the ABC to match its analog coverage in metropolitan areas by 2008 and in regional areas by 2012. The Corporation has already met its quota for metropolitan areas ahead of the deadline. Transmitters will continue to be rolled out in regional areas over the next seven years, at a rate of approximately 40 new transmitters each year, in order to meet the regional deadline of 2012.¹⁴ By 2012, the ABC's digital signal will reach 98% of the country – broadly equivalent to current analog coverage.

Equivalent Coverage

However, the ABC is uncertain whether the current approach to spectrum planning for digital television will be able to truly achieve the objective of equivalent coverage. The Corporation has already identified digital broadcast areas where it has not been possible to achieve equivalent coverage to analog services. For example, the ABC's analog service to the Bega/Cooma region is transmitted on VHF Channel 8 from Brown Mountain, while its digital service will be transmitted using UHF spectrum. As a result, the ABC's coverage will be reduced by between 769 and 1,634 households, depending on the siting of the digital transmitter, a decline in effective coverage of between 7% and 14%.

Additionally, there are a number of areas where digital television services are currently operating at power levels below those ultimately planned to prevent interference with existing analog transmissions. It will not be known whether these services will be able to achieve equivalent coverage when operating at full power until the cessation of the analog services; the installation of further transmitters may be necessary to ensure that the objective of equivalent coverage is met.

Future options

The ABC believes strongly that the legislative framework for digital television should be designed to encourage the uptake of digital technology by consumers. The broadcasting industry has made considerable efforts, within the current constraints, to deliver new content and services to audiences. However, the constraints are simply too great to allow the necessary flexibility and creative freedom to develop the full range of services that will appeal to a wide audience and encourage the widespread digital take-up that the government is seeking.

¹⁴ Immediate plans are available at <http://www.abc.net.au/reception/services/new_transmitters.htm>.

The most straightforward way to achieve greater takeup would be to allow broadcasters and potential new entrants the flexibility to design and deliver content and services that are appealing to audiences. The current restrictions simply do not give the industry the flexibility it needs to develop the content that audiences are seeking.

Leadership from the Government is necessary in developing a broad industry approach to a range of issues. These include the development of a timeframe and strategies for analog switch-off dates and resolution of digital receiver and broadcast transport stream difficulties with the development of a Test and Conformance Centre. This support would greatly assist the development of a robust free to air digital television industry in Australia for the future as well as increase the value proposition for consumers in purchasing a digital television receiver.