Background
The Interactive Television Research Institute is an independent non-profit interdisciplinary research centre based at Murdoch University in Perth, Western Australia. Our clients and research partners are global in character and include many of the world’s leading advertising brands and media platforms. In the United States, for example, our advertising clients account for over one third of the US TV advertising spend. Many now view the Institute as providing one of the world’s leading research centre’s in study of viewing behaviour associated with the evolving digital television industry.

Despite our global focus, we have maintained an active research agenda on issues specific to the Australian market. Currently, for example, we are in the final stages of a three year project exploring how pre-school aged children respond to interactive television applications. This ARC funded project (in collaboration with the WA Department of Education, the ABC, Nickelodeon and the Nine Network) has seen almost 500 children participate in research conducted in our Portable Audience Research Centre (PARC) – a portable lab housed in a caravan which visited 21 schools. We have also engaged in a wide range of studies exploring consumer responses to a wide range of digital TV applications. In terms of issues associated with Australia’s digital policy, we remain active participants and have engaged in a number of policy studies – indeed, the ‘beauty pagent’ datacasting option put forth by the Australian Democrats was based, in part, on our submission to the Datacasting Review.

The Institute’s research facilities provide dedicated infrastructure for the study of interactive television viewing. Our labs on the Murdoch campus provides mock living rooms simulating the in-home experience of viewers. In this environment we test digital TV content – usually using research methods reflecting experimental design so as to compare linear and interactive approaches in a controlled environment where variables can be properly isolated. This includes a reference digital head end designed to modulate across satellite, cable and terrestrial platforms; and advanced audience measurement tools including eye gaze monitoring (mapping viewer eye movement over the TV screen) and perception analysers to map viewer’s moment-by-moment perceptions.

Given the many submissions the Committee will undoubtedly face on this issue, we will keep our comments short. We are happy to expand upon any of the issues noted
below and are keen to provide the supporting research, where appropriate, if the Committee so wishes. Likewise, the Institute’s Director, Professor Duane Varan, is happy to testify directly to the Inquiry if it please the Committee.

Australia’s Digital TV Roll Out
There is no question that television market’s globally have experienced a range of challenges associated with the roll out of terrestrial digital TV platforms. Given the wide range of parties which are integral to effectively facilitating this transition and the inherent technical complexities associated with the technologies, this is understandable. Indeed, we believe it represents the single biggest challenge facing the broadcast industry since its inception – significantly more complex, for example, than the transition to colour.

In some regards, Australia’s policy to date has been successful on a number of levels. The necessary transmission infrastructure, at least for most of the capital cities, is largely in place. Australia’s decision to adopt the DVB digital standard (as opposed, for example to the ATSC standard which could have been adopted given the high definition character of Australia’s roll out) has proven itself, by global measures, to have been the best available option. There are now a wide range of digital TV receivers in the market, by some estimates in excess of 10% of households – and these are available at relatively low cost. This is further supported by regular promotional campaigns supported by broadcasters informing viewers of the potential benefits associated with digital television. These achievements should not be discounted.

Despite these gains, however, Australia’s digital policy has not lived up to its potential. Indeed, we believe that on many levels (these will be elaborated on), the policy is failing to live up to its obligations. Our view is that the policy is falling short in significant measure and will not – on its current trajectory – advance Parliament’s intention to shut down analog TV in the foreseeable future. It is also our view that the failure is not a primary function of market factors, per se, but is a direct result of poor policy. Our policy concerns and their potential impact on the market will be addressed in specific terms in this submission.

A Policy Protecting the Status Quo
As noted earlier, crafting an effective policy facilitating digital migration is no easy feat. Not only are there a wide range of technical issues to navigate through, but there are a wide range of market actors whose participation is critical to the effective implementation of television’s new value chain. Beyond technical considerations, there are also a wide range of commercial considerations essential to making any approach sustainable. The guiding principles for policy are also often ambiguous as the prevailing principles of the past (e.g. spectrum scarcity) don’t quite fit the new landscape. And it is always difficult to anticipate consumer demand in advance – requiring planning for a future that hasn’t yet arrived.

It’s clear that any transition strategy would have its own challenges. What is problematic about the approach in Australia is not that digital migration is complex… it’s that the process has so clearly shifted from its original stated objectives. Rather than usher in a new age – the policy is attempting to replicate the analog paradigm in a digital universe. The situation is less a reflection of the original legislative intent… rather, it has resulted from the manner in which the policy has been implemented.
At every juncture, the policy has navigated a path forward by making ad hoc concessions designed to appease particular segments of the television industry. What has been cobbled together is a ‘lose-lose’ montage - penalising one market actor to compensate for the fact that another has been disadvantaged in some way. It is a path forward whose premise is based on mutual disadvantage. Rather than maximise the capacity to respond to audience demand (critical in navigating into an uncertain future), the policy inhibits market innovation and chills investment.

This situation cultivates an environment where the only clear ‘win’ is associated with preservation of the status-quo. In other words, the policy framework effectively is designed (whether or not by intent) to migrate the existing paradigm of television – complete with its existing value chain and players – across to digital with minimal disruption. This approach is problematic on three levels. First, it fails to capitalise on the many advantages which digital affords. Second, as a result, there is less incentive for consumers to adopt – significantly delaying analog shut off (thereby maximising spectrum efficiency). Third, it fails to stimulate market adaptation in the television sector – which will be critical to preserving Australia’s capacity to maintain strong cultural industries going into the future (this theme will be elaborated on later in the submission).

It is important, therefore, to question what the intent of the digital migration legislation is. If it is simply to move the existing broadcasters from analog to digital and preserve television’s existing paradigm, then the best path forward would be to adopt a plan similar to the FCC in the United States and require digital tuners in all TV sets by a particular target date. Over the course of 15 years, a migration would naturally be facilitated. The current policy framework serves this direction well… in this environment the transition process is relatively straightforward and simple. The relative cost of this to consumers would also be minimal as television production globally has largely been commoditised – resulting in significant downward pressure on price which, in effect, absorbs perceived negative consumer sentiment (as costs appear to remain stable, in relative terms).

If, however, Australia is to benefit from the full range of benefits enabled by digital and if the Australian market is to adapt to global change in this arena, a more sophisticated policy is required. At this level, Australia’s policy falls short. Specifically, we raise concerns with regards to the following:

**Datacasting**

Perhaps the single area where the policy has most visibly failed has been in the inability to effectively introduce datacasting in Australia’s digital television landscape. The failure of the datacasting auctions was a clear indictment on the market’s rejection of the specific model of datacasting put forth by the Government.

Australia’s datacasting regime is a classic textbook example of poor digital television policy. In fact, we would assert that, taken in isolation (independent of the rest of Australia’s digital policy), it is the single worst digital policy implemented in any national digital transition strategy globally. The idea that a
legal standard could possibly be based on subjective differentiation between ‘informative’ and ‘entertaining’ content is nothing short of ridiculous.

What is even more remarkable, however, is that faced with clear evidence that the standard was non-viable (following the collapse of the auction), the Government chose to continue to adhere to the standard rather than attempt to adapt it to respond to the market. This, we believe, constitutes a fundamental flaw in the digital framework as a whole. It is also a reflection of the process through which the policy is being implemented; highlighting its inability to adapt to market demand.

The original legislation crafted an environment where datacasting was introduced as a vital stimulant to accelerate digital adoption by consumers. The datacasting fiasco has, in effect, left a void in what was supposed to be one of the critical drivers. This, we believe, is the single biggest failure of the policy to date.

**Competition Implications**

A key feature of the digital legislation was a degree of ‘competitive tension’ designed to balance the interests of incumbent and new television players. This recognised, we believe, that incumbents would best be motivated to facilitate the transition where there was competition in the character of the digital service itself. It also responded to on-going pressure to diversify media control in Australia.

The datacasting fiasco has resulted in an environment where there is no competition within the terrestrial digital platform. In this context, key decisions reflecting the character of the platform and its key features are left to incumbents alone – who have minimal incentive to facilitate change. This suggests that, others things being equal, the path moving forward will continue to reflect minimal change – retarding the introduction of the full range of possibilities enabled by digital and thereby slowing digital take-up.

At a level of principle, there are also serious questions here about the degree to which the policy is inhibiting diversity of voice in Australia’s television landscape. The existing situation, dominated by three commercial networks, has been justified in Australia on the basis of spectrum scarcity. A good part of that scarcity has been further replicated by the decision to adopt high definition television. However, the legislation allowed for competition – and the spectrum required to deliver against this was identified. The failure to introduce such competition is, therefore, a further reflection of the failure of the policy to diversify Australia’s television sector.

**Interactive Services**

While the digitisation of television enables better sound and picture, it also enables a wide range of interactive services. This includes enhancements to television programming as well as stand-alone applications. Our research has consistently demonstrated that such interactivity can significantly enhance the viewing experience. Such services also introduce new business models.
In research exploring the impact of interactive advertising, for example, we have demonstrated that interactive ads deliver impact equal to seeing a linear ad repeated three times (see attachment ‘A’). For media planners, this represents a significant opportunity as attracting repeat exposure gets more and more challenging in a fragmented audience viewing environment. This helps explain why, for example, advertisers in the UK have so enthusiastically adopted interactive ads despite the cost premium associated with such advertising.

Potential new revenue streams are particularly important for broadcasters because the economics associated with television are shifting from ‘economies of scale’ to ‘economies of scope’. In other words, increasingly in the future, a broadcaster’s profits will be made based on their capacity to leverage their content assets across platforms rather than on the basis of the size of the audience on any single platform at any single point in time. In this context, a key challenge for broadcasters is to diversify revenue streams – breaking the almost exclusive dependency they currently maintain on a single model of advertising (the 30 second commercial).

Interactivity, therefore, is critical to embracing television’s new business models. But by its very nature, such interactivity is disruptive to the existing business practise. In this context, other things being equal, broadcasters have more invested in the status quo than in change.

The advent of the Personal Video Recorder ultimately forces this transition in the market as the existing 30 second commercial model rapidly erodes outside of those programming opportunities still able to reproduce critical mass. Advertisers, therefore, are keen to explore new advertising models based on viewer ‘engagement’ rather than viewer ‘exposure’ alone. In time, we believe, a fundamental shift occurs – and this will increasingly require a capacity to facilitate interactive content.

While it is not the role of Government to ‘pick winners’, the issues associated with the lack of interactivity in the current broadcast landscape reflect policy decisions – rather than market forces. By inhibiting datacasting, for example, a critical stimulant for interactive services has been lacking. Ultimately, the failure for Australia’s digital policy to effectively cultivate interactive services is another example of selling consumer’s short on the digital proposition.

**Backchannel and Integrated Platforms**

A wide range of interactive services reflecting digital’s promise require a backchannel facilitating two way interaction with the viewing audience. This has implications for both receiver standards (to be discussed separately) and a significant investment in the back-end technology necessary to facilitate such transactions.

The situation in Australia is such that a backchannel of any meaningful kind is difficult to evolve given the fragmented nature of the platform. As each broadcaster is in complete control of their own spectrum, it is not possible to create a single unified system optimising the experience for viewers.
For example, if a viewer watched an interactive ad on the Seven network and chose to interact – and then switched to channel Nine and chose to interact again (in both cases we’ll assume this required a two way transaction as opposed to a frontchannel interaction) – this would require two separate calls. For advertisers, this could also mean having to deliver to two different requirements and potentially paying additional premiums for access across two platforms.

Although there have been parties interested in exploring commercial models based on distributing free or subsidised set top box receivers in return for facilitation of the platform, the inability to aggregate across interactive services on the platform significantly chills investment in this regard.

In the UK, by way of contrast, regulators have separated the platform and individual channels across that platform. Although Freeview hasn’t yet attempted to exploit a backchannel (though it has the capacity to do this), this disaggregation of channel and platform enables a wide range of services which make the platform, as a whole, a significantly more attractive proposition for viewers. For example, an EPG sitting across the platform provides a more integrated and fulfilling experience for the viewer than the Australian approach of having separate EPG’s for each channel.

Again, the issue is not to mandate any particular market response… but to facilitate the provision of an integrated platform capable of responding to a wide range of commercial opportunities associated with the backchannel. Australia’s existing policy framework largely inhibits the cultivation of such a platform.

Receiver Standards
Although Australia has over-regulated many aspects of the industry, we believe it has under-regulated questions associated with standards. On one level, this creates a chaotic environment with a large range of devices sold in the market with no assurance that they meet minimum standards.

When the digital proposition is limited to ‘zapping boxes’ – as is currently the case – this introduces a minimal risk to the market. Primarily this risk is associated with a loss of consumer confidence in digital due to poor performance of digital receivers. However, as more sophisticated receivers are introduced following the provision of more advanced digital services this creates a chaotic environment as all providers are held to the lowest common denominator. This, in practise, further compromises the digital proposition for viewers.

Mandating digital standards and developing a compliance scheme should be an integral feature in Australia’s digital policy framework.

Role of National Broadcasters
It is clear that the provision of either enhanced or additional content is a key driver for digital uptake. The experience in the UK demonstrates that when digital penetration is low, channels have little incentive to provide such content. But as digital adoption approaches a critical threshold (let’s assume this begins to become significant at 33% penetration), channels begin having incentive to make such content available.
So a key question is how new content features as part of the digital proposition prior to it featuring significant enough audience scale. This is a chicken or the egg question. New content drives uptake. But critical scale is required to provide the necessary incentive to get content in the first place.

In the UK, the national broadcaster (the BBC) has fulfilled this role. The provision of the BBC’s digital content (both its additional channels and its interactive enhancements) have clearly stimulated digital adoption – indeed, in terrestrial space it is probably the main market driver. This has also played a significant role in ‘training’ viewers for the new interactive landscape.

In Australia, however, national broadcasters have largely been inhibited from driving such innovation – not only through limited budgeting but, perhaps more importantly, through legislation barring them from providing specific content genres across their new services. Although a second ABC channel is back on air (and there is good evidence that this is stimulating digital adoption), the policy has largely failed to facilitate an active role for national broadcasters in pioneering innovation in the digital market. This is not due to a lack of desire, on the part of the national broadcasters, to fulfil such a role. Rather, it is a result of the policy framework itself.

**Policy Rationale**

The concerns we voice highlight the degree to which – at a level of principle – the overall objectives associated with the policy remain unclear. Where these principles are clearly articulated, the implementation of policy tends to better steer the transition process.

In other markets the policy rationales are clear. In the US, for example, digital migration is driven primarily by spectrum scarcity. In the UK, competition policy has largely driven the digital conversion agenda. In South Korea, digital policy has responded to market opportunities associated with the export of television production and reception equipment building a base through which to strengthen local industry. What drives policy in Australia?

Here the issues of spectrum scarcity, with some notable exceptions, are for the most part not a driving force. For most of Australia, there is no where near the type of scarcity that is driving change in the American or European markets. Australia also has a limited electronics equipment manufacturing industry – so this seems an unlikely rationale. Although there are significant competition issues in Australia, the chaotic approach to digital here hardly reflects any type of consistent or coherent competition framework. In this sense, digital conversion policy lacks a compelling driving principle.

We would suggest that the main driver for change in Australia should be the need to harmonize the television industry to fundamental change taking place in globally. This, we believe, is important in helping provide a buffer for this transition and in protecting Australia’s cultural exports (which in turn has a profound effect on our own domestic television production capacity).
In terms of buffering change… there is no question that the landscape associated with the structure of the television market is in a period of unparalleled change. We can provide a more detailed discussion of the nature of this change, if the Committee wishes. In brief, each of the fundamental pillars associated with broadcasting’s golden triangle (delivering mutual value to channels, advertisers and viewers) is experiencing significant disruption. The relationship between viewer and advertising is disrupted by technologies empowering viewers to avoid ads; advertising and channel relationships are being challenged by increasing demand for accountability (reflecting a shift from above to below the line media); and the relationship between channel and viewer is being transformed by growing audience fragmentation (this trend has not yet impacted Australia due to low pay-TV take up).

A range of technologies are further accelerating the process of market disruption because of their capacity to operate outside the parameters of this golden triangle. IPTV (television delivered over broadband) transcends national borders – accelerating fragmentation (particularly among key viewing cohorts). PVR’s disrupt ad models – particular where there is measurement of its time-shifting character (as will be the case in the United States in early 2006). There will be indirect effects associated with the transition as well. For example, the pace of change associated with the PVR market will probably be much more rapid in the United States than here in Australia. Even though the shift plays out on distant shores, it will impact the media planning strategies of the global brands – which account for almost half of the Australian TV ad spend. Hence, even before the effects have fully played out in Australia, they will begin impacting the structure of the market.

Although it is reasonable to argue that broadcasters should be left to their own device to adapt to this shifting landscape, the implications associated with this transition do not limit the potential fallout to broadcasters alone. Australia’s cultural and advertising industries are also put at risk. Hence, decisions by one segment of the market (broadcasters) are currently shaping the capacity of other vital segments (e.g. content producers) to respond to such fundamental market change.

It is also important to note the degree to which Australia’s success in the export of cultural products are put at risk. Australia’s television exports transcend it relative market scale. Such exports have been instrumental in lifting the quality of Australian television content as a whole – because the few sparks of success bring with them windfalls that underwrite significant losses enabling significant investment in television production.

However, as Australia insulates itself from changes playing out in other regions – particularly in the US and European markets – its capacity to effectively export to these markets diminishes over time. This in turn erodes the quality of Australia’s domestic television content sector as well. The negative fallout of all this is further impacted by the increasing availability of international content (distributed through IPTV), further diminishing Australia’s cultural industrial capacity.

Currently, Australia’s digital conversion strategy has minimal (if any) consideration for such factors. There is, for example, no provision in the content quota scheme rewarding the significant risk associated with interactive television content. We believe that articulating the need to develop a competitive digital television content
sector provides a meaningful principle (among others) to help shape Australia’s
digital conversion strategy.

**Consumer Incentive**

It is our view that the interest of consumers has not been a driving factor in facilitating
the conversion to digital. While better sound and picture provide some level of
incentive, there are clear consumer drivers which are specifically inhibited by
Australia’s digital conversion policy.

We’ve attached a copy of a survey we conducted on behalf of the Australian
Broadcasting Authority (see attachment ‘B’). This survey attempted to get a snap
shot of the views of those directly engaged in the digital television sector. At the
time, we managed to solicit the views of approximately one third of those in the
industry who had any direct experience with digital. In many ways, this reflects a
candid view of these opinions. Given the exposure the study received following it’s
distribution, it is unlikely that those surveyed would again be so candid in sharing
their views.

What stands out in the ABA survey is the degree to which the opportunities which
those in the industry believe consumers will respond best to (such as multicasting) are
the very drivers inhibited by policy. The converse is also apparent… the policy’s key
drivers – such as high definition – are seen as providing the least incentive. This
highlights the degree to which even those in the industry itself see a discrepancy
between the services they provide and those they believe consumers are most
interested in.

Rather than engage in a debate about what the best driver might be, the best approach
(given that spectrum has already been allocated for high definition) is to allow market
forces to decide. This is not possible, however, if key market opportunities are
denied. The best approach for consumers, it would appear, would be one maximising
flexibility – so that broadcasters and datacasters were free to compete using a variety
of drivers to test which consumers respond to best.

**Future Options**

On the basis of this discussion, the Institute would make the following
recommendations to help accelerate digital conversion:

1. **Digital Television Standards**
   As noted above, there is a need for a government process designed to mandate
   specific parameters of the digital conversion process. This does not have to be
   extensive and span all aspects of the industry – but it must ensure that a
   minimum technical standard (particularly at the level of set top box) is met.
   This is not about a single issue (e.g. MHP) – it reflects an on-going need to
   adapt to constantly changing market forces. Although allowing industry itself
to self-regulate is an option, there is no forum which facilitates this from a
position of true competitive neutrality. Also, self-regulation has demonstrated,
over the past few years, that it moves at a snail’s pace, a position inconsistent
with the ambitions of accelerated digital conversion.

2. **Digital Television Commission**
In the UK there were significant market advances following the demise of ITV Digital resulting in the articulation of the Digital TV Action Plan. This included a high profile ‘Stakeholders Group’ linking key policymakers and industry representatives. We believe that Australia would benefit from the creation of an entity given explicit mandate over digital conversion in a forum facilitating close interaction with industry. Naturally, such a group should reflect the diversity of market agents central to any effective transition including broadcasters, datacasters, equipment manufacturers, advertisers, policymakers and academics.

3. Datacasting Channels
We recommend the introduction of two datacasting channels, whose scope would be mandated as follows:

a. Platform channel
As noted earlier, in the UK the Government withstood significant incumbent pressure and separated the platform from its various channels. This has resulted in an integrated channel (Freeview) capable of presenting viewers with a superior digital proposition. By way of contrast, the American approach (similar to Australia’s) of awarding licenses individually provides no coherent integrated platform framework.

We recommend a hybrid approach allowing individual channels full control over their spectrum, but also enabling the creation of a datacasting channel to provide integrated services across the platform. This would provide clear market incentive for an emerging market actor to invest in significant backchannel infrastructure. It might also provide for new distribution models based on maximising distribution of appropriately enabled set top boxes.

The front end of this channel should be an Electronic Program Guide designed to facilitate an integrated viewing experience for viewers. Access to data associated with this guide may be an issue requiring further legal specification. Similarly, provisions associated with fair royalties to platform channels (the cost of ‘clipping the ticket’) may need to be specified so as to enable interactive transactions through use of the platform.

We are keen to assist the Committee in further exploring this option, if it is of interest to the Committee. We believe it will attract significant investment, provide a more cohesive digital terrestrial platform and accelerate adoption by viewers.

b. Digital channel
We would recommend that the second channel be allocated for the provision of a 4th commercial TV network – limited to digital spectrum alone. We would recommend no artificial constraints be imposed on the provision of this channel (i.e. datacasting inhibitions), but rather suggest that by limiting its availability to digital alone there is sufficient market incentive for the channel to help stimulate digital take up.
4. Flexible Spectrum Usage
   As noted earlier, we believe that digital take up is maximised by ‘win-win’
   rather than ‘lose-lose’ inhibitions. Rather than build a strategy based on
   creating mutual disadvantage for all, we believe an effective policy must
   stimulate the market with clear incentives for all.

   Accordingly, we recommending removing most of the current restrictions and
   allow the market to itself decide which factors best contribute to digital take
   up. We would encourage continuation with high definition – but allowing
   broadcasters the flexibility to use their spectrum for multiple channels,
   enhancement or other television applications. We would encourage the
   removal of datacasting restrictions and have provided you with our views as to
   how the spectrum might best be used. We would also recommend re-visiting a
   range of prohibitions imposed on the pay-TV sector as the removal of many of
   the digital restrictions directly impacts them without providing them with new
   opportunities moving forward. This may require a separate inquiry.

   The principle we advocate here is one of maximum market flexibility so as to
   allow the market to better identify potential opportunities. However, we
   caution that without the introduction of new players, who are not invested in
   the current television paradigm in Australia, the necessary competitive tension
   may be lacking to fully exploit such opportunity.

Conclusion
As a non-profit independent research centre based in Australia, the Interactive
Television Research Institute is keen to assist, in whatever way it can, the needs of the
Committee. We believe that the current review plays an important role in shaping the
very structure of Australia’s television landscape for decades to come. We are happy
to provide the Committee with any further research or background information
available to us (subject to our own Confidentiality constraints). Likewise, as noted
earlier, our Director would be please to testify at the Inquiry if it please the
Committee.

We wish the Committee well in its deliberations.