



## ABC TV and multiplatform innovation in the era of high speed broadband

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The television broadcasting industry in Australia (and around the world) is going through a period of rapid and fundamental change. As a publicly funded broadcaster the ABC (Australian Broadcasting Corporation) is playing an important role developing and implementing innovative content propositions across diverse delivery platforms. The growth of on-demand viewing, interactivity, social media and personalised data will significantly alter the traditional audio visual viewing experience and with it has the potential to radically change distribution, business and production models.

The ABC is engaging with a range of innovative broadband enabled initiatives to ensure it can continue to deliver locally relevant content and services for its audiences. By taking risks which other media organisations might not be prepared to incur, the ABC is also playing a part in encouraging innovation more broadly across the industry. This is essential if the local media industry is to prosper and if demand for the distribution and creation of local content is to be maintained.

### Introduction

The television broadcasting industry in Australia and around the world is going through a period of rapid and fundamental change. This change is affecting platforms, audience behaviour, content and business models. Primarily this change is being driven by technological developments, which are in turn enabling shifts in audience consumption, distribution and form. Audiences are fragmenting across the various television platforms but also across new delivery platforms as well as across time by watching far more on-demand and catch up content. According to the Nielsen Online Consumer Report (released in 2013), 43% of online Australians claim to access TV, movies and related content via internet services and sources, and over one third watch time-shifted TV (TV recorded and viewed at a later time). In January 2013, the ABC's on-demand Internet TV service, iview, which offers 14-day catch-up of primetime broadcast, recorded more than 14 million program plays (source: WebTrends data) on devices including computers, tablets, smart phones, gaming consoles and set-top boxes, and more than 500,000 monthly active users (source: Flurry data) of its tablet and smart phone application.

The ABC has been an early embracer and leader of interactive content and new distribution channels. The Corporation was the first to air in Australia with a digital multi channel with the launch of ABC2 in March 2005. The ABC pioneered the introduction of vodcasting in Australia, launching its vodcast service in July 2006, and was the first to offer catch up TV with the launch of iview in July 2008. With more than 450 presences across a wide range of social media platforms, and 75 YouTube channels, the Corporation is a leader in social media

and new distribution channels to promote products and interact with audiences, and has a comprehensive online offering available across a range of intelligent devices.

With the roll out of the ubiquitous National Broadband Network (NBN) and the steady and increasing growth in online consumption the ABC is working to remain a leader and to meet audiences with compelling content where and when they want it. The NBN has the potential to extend and multiply the ABC's touch points with the Australian public in significant ways. While understanding the strength of its existing broadcast platform, its ability to reach audiences across the country and to distribute high quality and relevant content, the ABC continues to develop new online offerings, points of access and social media tools that can be incorporated with its existing content offerings.

Many of these innovations have been developed in house and grown organically out of existing services. The ABC's iview is a good example of a service that works in tandem with the ABC's television service but which has also grown into an important stand alone branded service. Similarly applications for specific programs such as Play School and the distribution of that content to tablets and smartphones is something that the ABC has developed out of its traditional content base.

However other initiatives are being driven through industry collaborations and new content partnerships. These strategic alliances are allowing the ABC to develop and facilitate innovative services that leverage the industry wide evolution in online distribution and the social aspects of media and specifically television type content.

As the use of personalised devices, personalised as opposed to scheduled viewing, social TV, interactive content, facilitated recommendations and in particular high speed online delivery change so too will the nature and value of television. The ABC is seeking to invest in projects and form partnerships in order to embrace these changes in a way that complements its existing services while expanding its offering in keeping with its Charter and public broadcasting responsibilities. A number of these projects are discussed below.

## ABC iview

In July 2006 the ABC launched a vodcast service featuring *The Chaser's War on Everything* and a youth music initiative called JTV. By December 2007 the service had grown to more than 20 programs and had recorded more than 14 million downloads (Source: iTunes Connect). In July 2008 iview was launched.

The iview service has experienced significant growth. By the beginning of 2012 there had been a tenfold increase in visits. According to the Nielsen Online Consumer Report (released in 2012), ABC iview is by far the most popular catch-up TV service in Australia. With the introduction of new platforms access to and usage of iview has continued to grow. By June of 2012, iview had been made available on the Xbox, connected TVs and via iPad and iPhone. In January of 2011 iview was recording two million programs plays per month; in January 2013 iview recorded 14.2 million plays. Similarly monthly mobile and tablet plays have also increased significantly from an estimated 100,000 in January 2011 to more than 7 million in January 2013. (Sources: WebTrends and Flurry data)

The growth of iview parallels a shift in audience expectations about when, how and where they can watch TV content. iview is all about choice, convenience and accessibility. At any given time there are over 350 hours of on-demand ABC TV programs available via iview. As broadband plans grow in capacity and bandwidth is no longer a major limiting factor audience usage of the service continues to grow.

Importantly for the ABC iview was the piece of innovation that liberated its television broadcasting service from the fixed in time and space linear relationship with its audience.

Part of iview's success has been due to a willingness on the part of the ABC to make the service available on as many platforms and devices as possible; from PCs to tablets and smartphones, gaming consoles and connected TVs. In an online environment iview has also

demonstrated that a shortcut on a device home-screen or within the offering of a competitor is sometimes more important in terms of take up and usage than a traditional electronic program guide (EPG).

Also important are the ways in which iview is consumed. In 2010 8% of iview usage was via a tablet or smartphone, 80% was via computer and 12% was through a connected TV or console. Following the launch of iview on mobile devices that pattern of access has shifted dramatically. Today, according to the ABC's WebTrends data, 54% of iview plays are through a tablet or smartphone, 37% is via a computer and 9% is via a connected TV or games console.

Personal devices that offer the very essence of where-and-when viewing, along with an on demand content service, are providing audiences, particularly younger audiences, with an incentive to consume the kinds of long form audio visual content traditionally found on scheduled television. Among the various platforms that iview is available on tablets have seen tremendous growth in the last two years. Tablets have emerged as the 'couch computer' of choice. ABC children's content remains the most popular category of programming viewed via tablets.

In light of these changes, the roll out of the NBN and the growing importance of social media in viewing choices iview is the process of undergoing a significant upgrade. Central to this upgrade is the notion of content sharing and social network recommendations. Also important is interactivity and of finding ways to build interactivity into traditionally 'passive' content.

While working as a complement to the traditional broadcast platform and attracting a far smaller audience iview is nonetheless becoming increasingly important as a means of delivering and discovering programs. The changes to iview will enhance its personalisation through improved search, navigation and recommendation functions. Collections of curated groupings of content will be available up front. Accessibility will also be enhanced via connected browsers and TVs. Anecdotal as well as audience research data from the Australian Multi-Screen Report (released in 2012) indicates younger audience members are spending more time watching video online which is impacting time spent viewing broadcast television in the home. This includes individuals in share houses, university students and younger viewers who in some cases do not use a TV set everyday but do have access to WiFi and personal devices that serve as entertainment platforms.

The opportunities for iview and on-demand viewing are many. For example some programs gain greater traction online than on broadcast. *Dumb, Drunk and Racist* on ABC2 was the number one program on iview for the duration of its TV run. iview also provides a platform for the ABC to fast track and premier specific content titles such as *Dr Who* and *Rake*. iview is flexible and fast; with no broadcast schedule and no need to find an appropriate viewing slot there is no delay in delivery of the content. iview allows the ABC to develop bespoke content and encourages engagement through the discovery of pre broadcast material. At present the ABC acquires a set of programs that are exclusive to iview. Looking to the future the ABC could also commission content specifically for iview, for instance content created for niche audiences who may be engaged with a brand more generally than with traditional programs (e.g. *Rage*, *Triple J*, comedy and factual programming).

Specifically in terms of the NBN there are a number of opportunities for iview that the ABC will explore including improved picture quality, multicasting and lowered Content Distribution Network costs, improving access and reaching more Australians, facilitating greater choice and using network scale to deliver higher quality and lower cost broadband TV. For many younger demographics iview is becoming the means of choice for accessing ABC content and with the rollout of high-speed broadband networks such as the NBN its importance is expected to grow.

## Cross Platform/Cross Device exchange

Another important aspect of ABC TV's online strategy is to find and grow linkages and synergies between its traditional platforms and content and new platforms.

In March 2012 the ABC launched its Play School application for the iPad. The Play School app allows the ABC's younger audiences to engage with well-known Play School characters to make pictures and short movies. Almost as an afterthought a streaming service of the Play School program was also included.

According to the ABC's WebTrends data, prior to the launch of the app Play School was recording 135,000 streamed plays a month. In the month immediately after launch of the app Play School recorded 360 000 streamed plays. In the following month it recorded 478 000 plays. Almost all of the additional viewing was occurring via the iPad either through the Play School application or directly through iView.

This sudden and large increase in streamed viewing demonstrates quite clearly that for some demographics online consumption of traditional long form audio visual content is not only a means of increasing accessibility but also of bringing audiences back to a traditional content form. It also demonstrates the value of specific and targeted content propositions in the online environment, and of surfacing content in multiple ways.

The ABC is also developing an initiative around audience contributed online content for the ABC 3 school age audience. This will involve the creation of a platform and destination for ABC 3 viewers to create, upload and share movies which could eventually also be broadcast on ABC 3.

Another important area of development at the ABC is exploring synchronous television experiences: developing and surfacing content that relates to broadcast TV, in sync with the broadcast transmission, via companion devices such as smartphones and tablets. The ABC is developing a prototype Companion App for the iPad. The dual-screen app will combine a useful TV guide and synched interactive content, information relating to broadcast programs (such as additional notes on documentaries), live voting, polls and social chat feeds as well as personalised recommendations. The Companion App is designed to complement the ABC's live broadcast content and will be used to trial a first implementation of broadcast synched online content.

The Companion App will be a first step in combining and leveraging three important strands that are emerging in content consumption: the rise of personalised devices, gaming/interactivity and home WiFi connected to a high speed broadband connection. The ABC plans to incorporate more content services into the app such as high quality games for younger audiences that accompany a traditional linear program and distinct networks of friends or acquaintances with a shared view and tastes. In particular the shared and social experience of television consumption traditionally referred to as the "water cooler moment" is something that the ABC believes should be viewed as an asset that can be leveraged to improve the viewing and consumption experience in a world full of domestic and international content providers.

Rather than undermining or weakening the traditional TV experience, online viewing and innovations such as second screen interaction and feedback can be used to leverage the capacity of high-speed broadband to strengthen both platforms. Second screen feedback can inform and shape the content of TV programs, allowing content creators to listen and cater to audience feedback via social channels such as Facebook and Twitter. There is the potential for such convergence to result in entirely new TV formats and programs.

## ABC TV and the NBN shaping the future of Internet-delivered TV

The ABC is investing effort into exploring the potential of the NBN as a next-generation high-performance network widely available throughout Australia.

In particular, it is working closely with Australia Centre for Broadband Innovation (ACBI) and National ICT Australia (NICTA) to evaluate opportunities and develop services around social TV, program recommendations and IP content distribution.

### About the project

The ABC has been collaborating with NICTA on its Next-Generation Content Distribution and Discovery project since 2011. It is a research project to design, develop and trial technologies in the areas of social TV, recommendations and content distribution. The project is a collaborative effort between ACBI and NICTA, over two years.

The project has two main aims. The first is to study the effectiveness of social media data for catch-up TV recommendations purposes, without any loss of user privacy. The second is to explore the potential of multicast / peer-assisted distribution which will be facilitated by the NBN, revealing methods to lower bandwidth and data storage costs, and make the delivery of on-demand TV more scalable and efficient.

As part of the social TV and content recommendations study, ABC TV is providing video and data to NICTA from the ABC's on-demand TV service, ABC iview.

NICTA is currently carrying out a live social TV trial in Armidale using iview and other on-demand video such as the popular TED Talks. A live prototype of an on-demand service is currently being used by people at the University of New England in Armidale, an early release NBN site.

During the trial, participants are able to browse and watch TV through their computer, post comments and share what they're watching on Facebook and Twitter, as well as to their friends also using the prototype.

A range of user reactions are being recorded from the prototype, and the data is being used to find correlations between programs based on genres, and define a number of stereotypical user behaviours. For example, this data may reveal that a person who particularly likes documentaries programs may also have a strong preference for lifestyle programs. The ABC is also providing large-scale data from iview to assist with developing these correlations.

In addition to correlations between programs, NICTA is studying the effectiveness of integrating social media networks with catch-up TV, and their usefulness in providing recommendations to users.

With this intelligence, at the conclusion of the study, the ABC will have access to research that will assist the use of algorithmic content recommendations within iview. Algorithmic recommendations may use program-related metadata and or personalised data to group similar programs together and present other programs to the user in a way that is targeted to their taste.

Future television services that seamlessly combine free-to-air broadcasts with IP delivered video on demand and catch-up will become more common, aided by the rollout of high-performance networks such as the NBN.

This proliferation of content offerings will drive the development of more sophisticated guides, search and recommendations tools that help users to find programs of interest to them. In a world of potentially unlimited content to choose from, intelligence in recommendations, social sharing and content curation will be key to shaping personal entertainment.

Use of these new content offerings will also be aided by people increasingly sharing their viewing habits through their social networks, and by simultaneous viewing, where broadcast and IP-delivered programs on the TV screen are viewed in sync with web content on tablets and smartphones. Further, IP-delivered content on mobile devices, as well as a person's own downloaded content, will be beamed with a touch of a finger to the living room TV.

This upward trend for IP-delivered on-demand content will take a greater place alongside traditional over-the-air broadcast and comes at a significant operational cost in terms of network bandwidth (often referred to as Content Distribution Network or CDN costs).

In the Armidale trial, NICTA is using the early-release NBN site as a test-bed to trial content delivery alternatives, with the end points being a mixture of PCs and Internet-enabled TVs connected via set-top boxes.

The primary advantage of a next-generation video distribution solution such as multicast is that it enables an Internet service provider to send an IP-delivered program once to a single multicast domain which then sends the program to thousands of end users. This is a more efficient and economical way of delivering video content as it reduces the bandwidth used by delivering one-to-many rather than one-to-one. Once high-speed broadband rollout has been completed, multicast will be widely available.

For people at home, this will mean a wider range of content from more video providers, and high-quality uninterrupted streaming. Video traffic to households will receive higher priority over general Internet traffic, so watching IP-delivered TV and video through a living room TV or personal device won't be affected by other activity such as general Internet browsing, downloads or voice-over-IP services.

With ubiquitous availability of a high-performance fibre network, TV audiences in Australia can look forward to even greater choice from their national broadcaster, more ways to watch and interact with programs, and with a higher-quality, lower-cost viewing experience through their Internet service provider.

## Conclusion

As a public broadcaster the ABC is uniquely placed in Australia to experiment and innovate in the forms and delivery of its content. High-speed broadband represents an ideal mechanism for enhancing the traditional viewing experience of television while also offering opportunities for new ways of finding, interacting with and consuming content. Similarly new forms of content such as layered information, social media and games can be delivered to audiences as integrated and also value added content and services. The interactive and social network aspects of media promoted by access to high-speed broadband and personal devices will also become increasingly important. Recommendations based on social network consumption and personalised data sifting will also leverage and grow the traditional television experience.

The ABC has been and will continue to be a leading innovator in the media and broadcasting environment. The ABC will continue to explore innovative ways of creating, curating and delivering content. The important role that the ABC can play in developing innovative content and new ways of accessing and interacting with content should help encourage other media players to reach audiences in new ways. As an industry it is important that broadcasters engage with new business models in order to maintain not only their advantage but also their relevance to audiences. Furthermore maintaining the strength of the local broadcasting industry is essential to the maintenance of a local production industry and the opportunity for Australians to watch and engage with local content about local issues and featuring local voices. The rollout of accessible high speed broadband will form a central part of the national broadcaster's commitment to serving its audiences and its Charter and will serve as a valuable opportunity to grow our local content industries and to serve domestic audience demands.

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