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<th>Author:</th>
<th>Morsillio, R. &amp; Barr, T.</th>
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<td>Year:</td>
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<td>Volume:</td>
<td>4</td>
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<td>Pages:</td>
<td>239-260</td>
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<td>URL:</td>
<td><a href="http://doi.org/10.1386/jdtv.4.3.239_1">http://doi.org/10.1386/jdtv.4.3.239_1</a></td>
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Innovation or disruption? The National Broadband Network comes to Australian TV

Robert Morsillo and Trevor Barr, Swinburne University

Abstract

There are many forces for change confronting the well-established institutional arrangements underpinning Australian media industries, with commercial television, in particular, likely to be most challenged during the next five years. New distribution and delivery models connected to the proposed high capacity National Broadband Network (NBN), along with new content providers and changing viewer preferences are likely to drive major changes to existing television arrangements. In a rapidly changing environment, this article seeks to relate established concepts of innovation and creative destruction, disintermediation and disruption to the impact these new NBN mediated opportunities may have on existing TV arrangements, both free-to-air (FTA) and subscription (STV). It seeks to explore the extent to which TV-like services over the NBN might disrupt incumbent TV broadcasters; the extent to which changing consumer preferences and practices might disrupt current business models; and how incumbent TV broadcasters might be responding to these threats with their own innovations.

Keywords

NBN

television

Australia

IPTV

broadband

innovation

disruption


Introduction

In April 2009, the Australian Labor Prime Minister, Kevin Rudd, announced a bold National Broadband Network (NBN) policy that proposed the construction of a new fibre-to-the-premise (FTTP) network to connect 90 per cent of Australian homes, schools, and work places with speeds of up to 100 Mbps. A new company, NBN Co, with majority government ownership would build the NBN. The government agreed to fund the construction of this wholesale only ‘open access’ high-capacity fibre-based network to provide an equal playing field for all retail service providers (RSP).

Whilst there has been widespread public support for this NBN plan, the opposition coalition parties have conducted a vigorous campaign against the current NBN policy, mainly criticizing the Government for not conducting a comprehensive cost benefit analysis. In April 2013 the opposition announced its revised policy based on fibre-to-the-node (FTTN) technology, relying on the incumbent carrier, Telstra, for the ‘last mile’ copper connection into homes and buildings. Under this plan ‘all Australians’ would have access to 25 Mbps by 2016, but at an alleged significantly reduced total capital expenditure. With the return of Kevin Rudd as Prime Minister in June 2013 the respective broadband policies of the major political parties are likely to be hotly debated in the lead up to the national election most likely due in September–October 2013. International eyes will be keenly watching what is likely to be one of the top five Australian election issues of 2013.

It is not the intention here to canvass the alleged merits and shortfalls of these divergent NBN policies but to focus on the impacts that an NBN may have to conventional television industries in Australia. The NBN is adding another national network option to the range of video content transmission platforms already available in Australia today. These currently include terrestrial wireless, satellite, Digital Subscriber Line (DSL) and Hybrid Fibre-Coaxial (HFC) cable networks. Each technology platform has its advantages and limitations, and current and potential uses. These networks and some of the key services, applications and service providers are summarized in Table 1.
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<th>Network</th>
<th>Service</th>
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<tr>
<td>Terrestrial wireless</td>
<td>Managed broadcast</td>
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<td>Unmanaged broadband</td>
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<td>Digital Subscriber Line (DSL) over copper</td>
<td>Unmanaged broadband</td>
<td>Internet</td>
<td>BigPond, Optus, iiNet broadband/ Apple TV</td>
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**Table 1: Summary of Technologies.**

Given the much higher broadband capacity of the NBN, video content consumption may be an important driver for increasing the take-up and usage of the NBN, and so for its commercial success. The potential impact of the NBN might be conceived in the following ways:

- **Innovation** – Because of its ubiquity, high-capacity and new product features, the NBN will support new ways of distributing high quality video content to households. For example, the NBN IPTV multicast service is a new addition to current broadband Internet functionality, which is likely to result in a new round of neo-Schumpeterian ‘innovation competition’ (Hanusch and Pyka 2008: 1) among entertainment, education and training services providers.

- **Disintermediation** – Content providers from around the globe will better be able to directly access Australian consumers, potentially bypassing established ‘middleman functions’ (Tapscott 1996: 56). Since the NBN is structured as a wholesale-only network with national average pricing it potentially reduces the barriers to RSP addressing the whole of the Australian market. For example, they only need to connect to 121 Points of Interconnect (POI) as compared previously to approximately 5000 Telstra local telephone exchange sites.
Disruption – The NBN introduces a brand new infrastructure network competing with existing proprietary satellite, HFC cable, wireless and broadcast networks. It therefore has the potential to disrupt vertically integrated business models and lead to greater competition at each horizontal layer – from content production, through distribution, to end-user connectivity and consumption preferences – thus potentially affording greater opportunities for ‘disruptive innovation’ (Christensen 1997: xviii).

1. Innovative concepts

The three innovation theorists cited above – Schumpeter, Tapscott and Christensen – would seem to provide useful frameworks to analyse and assess the impact that the NBN might have on existing media industry arrangements.

Schumpeter

Joseph Alois Schumpeter (1883–1950), whose seminal work on economic theory generated a whole new branch of the discipline, highlighted the dynamic nature of economic activity, and the role of innovation and entrepreneurial firms that he considered drive the economy forward in a process of ‘creative destruction’ of older structures, technologies and behaviours.

Every piece of business strategy acquires its true significance only against the background of that process and within the situation created by it. It must be seen in its role in the perennial gale of creative destruction; it cannot be understood irrespective of it or, in fact, on the hypothesis that there is a perennial lull. (Schumpeter 1942: 83–84)

Schumpeter emphasized innovation in cost and quality, rather than simple price competition, as a key success factor for new firms: ‘Generally, one may say that novelty, i.e. innovation, is the core principle underlying the neo-Schumpeterian approach. Innovation competition takes the place of price competition as the coordination mechanism of interest (Hanusch and Pyka 2008: 1).

This offers a framework to analyse the impacts of rapid technological change occurring in the Australian telecommunications and media industries, including ‘the breakdown of business models
that have served cultural industries like music, film, television for decades’ (Cunningham 2010: 21).

Krafft (2008) notes two sides to Schumpeter’s dynamism at work in the telecommunications industry: ‘a quantitative evolution process which proceeds from the emergence of a number of new communications technologies […] and] also qualitative since the traditional telecommunications industry […] was progressively transformed into a new industry, the info-communications industry’ (Krafft 2008: 622).

The advent of the NBN in Australia has some of the hallmarks of this dynamic innovation process, including, quantitatively, the introduction a new universal communications technology platform providing high capacity broadband and multicast IPTV capability, which, qualitatively, may give further impetus to the transformation of incumbent telecommunications, information, health, education and media industries.

*Tapscott*

In 1996 Don Tapscott wrote ‘disintermediation’ was the process where ‘middleman functions between producers and consumers are being eliminated through digital networks […]’ Disintermediation is changing the signal pattern’ (Tapscott 1996: 56). As an example of this process, in a survey of online finance in 2000, *The Economist* argued that the Internet is ‘the greatest force for disintermediation’ that the banking industry had ever had to tackle (Long 2000). Progressively, however, more authors have come to question the logic of disintermediation and the lack of supporting evidence. If banks, for instance were being dis-intermediated, how many of them had actually gone out of business?

Today, disintermediation is supposedly dooming distributors, retailers, wholesalers, and all other intermediaries between manufacturers (or service providers) and the ultimate customer […] A more reasoned view of the impact of the Internet on distribution channels is that it will transform but not eliminate them. The reality is that customers need a significant amount of value to be added to most products before they can buy and use them […] This value needs to
be provided by the distribution channel, which is here to stay, but not in its current form.

(Hammer 2000)

As part of a re-think about the use of the term dis-intermediation, a more nuanced conception of re-intermediation has emerged whereby the relationship between consumers and producers was essentially being re-defined. Rather than eliminating the conventional middleman model, the argument became that new intermediaries are being spawned in the digital environment of the Internet. The notions of re-intermediation may therefore be very applicable in an NBN world.

Christensen

Technological developments have often been linked to the notion of disruption. Clayton Christensen, perhaps most famously, explored this in his landmark book, The Innovator’s Dilemma: When New Technologies Cause Great Firms to Fail (1997). He makes the distinction between ‘sustaining technologies’ that generally improve product performance and ‘disruptive technologies’.

Disruptive technologies bring to a market a very different value proposition than had been available previously. Generally, disruptive technologies underperform established products in mainstream markets. But they have other features that a few fringe (and generally new) customers value. Products based on disruptive technologies are typically cheaper, simpler, smaller, and, frequently, more convenient to use. (Christensen 1997: xv)

It is these latter characteristics, most evident with Internet-based services and new modes of accessing and viewing multimedia content, such as with tablets and smartphones, which allow users to potentially disrupt the way TV content is distributed and consumed, and so potentially disrupt the advertising and ‘eye-balls’ dependent broadcasters.

We now turn to three emerging developments in the production, distribution and consumption of video content to see to what extent they might impact traditional TV broadcast media industries in Australia.
2. The NBN and ‘innovation competition’

The NBN, which is planned to deliver ubiquitous high-capacity broadband services, is very likely to benefit what are referred to as Over-The-Top (OTT) video streaming TV services. In this article OTT services refer to those provided over (unmanaged) public broadband Internet connections. Examples include Apple TV, Google YouTube, and TV catch-up services such as ABC iView.

Given the nature of fixed-broadband plans in Australia, which generally contain a pre-determined ‘included data allowance’, beyond which the connection speed is dramatically slowed or ‘shaped’, OTT video content services are generally limited to short-form, episodic content such as individual TV programmes or movies. For example, a 30-minute TV show would use about 350MB of data download. Movies would use about 1.5GB of data download for a two-hour Standard Definition (SD) title, or about 4GB for a High Definition (HD) title. The entry-level 12/1 Mbps NBN access service should be quite sufficient for even HD movie streaming, assuming there is no network congestion or bandwidth restrictions between the user and where the content is hosted.

With its intended ubiquity and high-capacity, the NBN could provide an effective disintermediation mechanism, directly connecting individual media producers around the world with Australian consumers. Of course, it is likely to also provide an even more effective disintermediation mechanism for Peer-to-Peer (P2P) sharing of video content due to its higher upload bandwidth capability. For example, the next higher NBN speed level, above the entry-level service, offers 25/5 Mbps, which is a significant increase in upload capability compared to typical DSL/copper-based services.

OTT services, having their basis in the public Internet, would appear to be able to fulfil many of the emerging consumer preferences in media consumption (discussed in Section 4 below), which are based on conventional Internet connectivity and online experiences. For example, it could allow immediacy, with on-demand availability of first-release content, whether from local or overseas
producers, whether at home or away. It could allow content to be accessed from a range of different devices/ screens together with interactivity through social networking applications.

With broadband access, many of these user preferences are driving ‘innovation competition’ in video content production and delivery through OTT services, such as in the following examples.

**Netflix**

While not (yet) available in Australia, Netflix is a very popular subscription-based OTT Internet TV service based in the United States of America (USA) but available (as at 31 March 2013) in over 40 countries with more than 34 million streaming customers (Netflix 2013). Rather than simply remaining an aggregator of movie and TV series content (cp. Barr 2011), Netflix has recently started investing in original programming for its own exclusive use, viz., *House of Cards* starring Kevin Spacey and Robin Wright. What is particularly interesting about this move into content production is the way it offers a different way to watch a TV series – episodes can be viewed either individually or all at once as the viewer prefers. Further, using customer data, Netflix was able to make informed popularity predictions about potential audiences before choosing what type of story and which actors to invest in. Such innovation in content, carriage and consumption has not gone unnoticed:

> It’s the first major TV show to completely bypass the usual television ecosystem of networks and cable operators. It’s also the first time that a series has released an entire season (thirteen episodes) all at once, for viewers to watch at their own pace. Finally, it’s the first time that programming has been developed with the aid of big data algorithms. That’s a lot of firsts.
> 
> (Satell 2013)

Through its success in redefining the distribution channel, a process of re-intermediation, in the USA Netflix is seen as a major threat to the established business models of the incumbent TV and cable networks that seem to continue to rely on bundled programming constructs to maximize revenues, but which are being forced to compete more actively.
Netflix] The company announced on Facebook that customers had watched four billion hours of streaming video in the first three months of the year […] that eye-popping number would make it the most-watched cable television network. Except it isn’t on cable, isn’t on television and isn’t a network. Those initiatives represent assaults on different parts of the business, but each is an attack on the bundle, and the legacy industry is reacting ferociously. (Carr 2013)

Hoyts Stream

In Australia, Hoyts has had two movie delivery services, namely its Cinema and Kiosk DVD/ Blu-ray™ rental-purchase businesses. However, in September 2012, they announced they will soon add a new OTT movie and TV streaming business. David Kirk, Hoyts chairman, suggests this is a unique offering:

No one to date has leveraged movie streaming with the cinema and DVD rentals and customer relationships. Hoyts believes it is well placed to become the market leader in this space […] we will be able to supply to people not only by going to the cinema, not only in the exclusive cinema window, but once you get into the home window you can get a physical DVD from an Oovie store [now called Hoyts Kiosk] and you can get a streamed DVD transaction on demand from our web site […] If we are looking to continue to grow our business, we really need to move into home entertainment. (quoted in Hoyts Corporation 2012)

While Hoyts Stream will be an OTT service, catering for on-demand, multi-screen user preferences, and thus adding to ‘innovation competition’, it probably only represents another example of competitive aggregation – simply adding yet another online channel for content distribution within Australia. For example, streamed content will only be available at the same time as the DVD becomes available. So, Hoyts may be recognizing the need to compete with other on-demand services, using the affordances of the NBN, while differentiating itself through its ability to offer an integrated suite of experiences from the cinema to the home, from the largest screens to the smallest, maintaining or increasing the profitability of each distribution channel.
The impact of Hoyts moving further online will probably be felt most by the local bricks-and-mortar video rental store – the single most widely speculated industry institutional change brought about by high-capacity broadband services. Industry data indicate that the number of stores in Australia has halved in the last 10 years to 2012–2013 and is predicted to drop dramatically in the next few years (IBISWorld 2013).

**AFL TV?**

Could the Australian Football League (AFL) use the NBN as a disintermediation option to go straight from producer to viewer without other media industry intermediaries? Andrew Demetriou, CEO, seems to think this is a possibility.

> We have just set up our own media company. We’ve set up our own production company. We’ve got our own publishing arm and that is all about preparation for the next broadcast rights because we may decide with the advent of the NBN to sell direct to the consumer. We might control our content more. We might work across various platforms. We are trying to control as much as we can control and not deal with as many third parties. That is where I see upside in the revenue. (quoted in Macintyre 2011)

On the other hand, Bruce Meagher, speaking on behalf of Foxtel, seems doubtful.

> Why would someone who is a sports body suddenly want to turn themselves into a media company? You would have to seriously question whether it is a smart move […] Nobody has actually done it yet anywhere in the world. There would be a very, very difficult transition to get over in order to achieve that […] (quoted in Battersby 2012)

But it has almost been done elsewhere in the world, as the example of Manchester United TV shows, even though its un-packaged OTT service, MUTV Online, is limited to highlights and video-clips, versus its STV service, which itself still does not provide live home games due to licensing deals (Manchester United Ltd 2013b). Another international example is the American National Basketball Association’s NBA League Pass, at [http://watch.nba.com/nba/subscribe](http://watch.nba.com/nba/subscribe), an
OTT subscription service, which for approximately AU$70 provides access to all games live. It is available to a range of connected devices, including the Apple TV.

In Australia, for a AU$79 season pass, fans can stream all National Basketball League (NBL) games for the season, as well as access highlights and replays on demand. An OTT service, it is available to a connected computer, phone or tablet device at www.nbl.tv/home. A range of other Australian sports also seem to be dabbling with online distribution using the PERFORM platform: a media company that ‘commercialises multimedia sports content across Internet-enabled digital platforms’ (PERFORM 2013). However, many of these subscription channels appear to be limited by licensing restrictions in what content can be provided and when.

**Australian TV catch-up services**

All of the major Australian TV broadcast networks now have OTT catch-up services, which generally allow the streaming of past TV shows to a suitable Internet connected device, such as an iPad or connected-TV, for a limited period of time. The ABC’s iView service is perhaps the best-known example, with a free iPad app that provides search functionality and the ability to watch content on the big screen via an Apple TV. Nielsen (2012b: 3–4) reports that 42% of all Australians ‘viewed television as a playback recording’ in Q1 2012, up from 37% a year ago and 50% of TV households had a Personal Video Recorder (PVR), up from 42% a year ago (Nielsen 2012a: 3). Catch-up services, along with use of PVRs, are likely responses to the growing consumer preference for on-demand TV content.

**FOXTEL GOes to the Internet**

Foxtel Go is a multi-screen, on-demand OTT service (initially for iPad only), that allows more people in the household to utilize the primary Foxtel subscription, even while out-and-about (depending on their data connection) (Foxtel Management Pty Ltd 2013a). Indeed, Foxtel Go adjusts the streaming data rate depending on the quality of the subscriber’s broadband connection. Interestingly, at least presently, it specifically won’t work with Apple’s Airplay feature, meaning you can’t stream it from the iPad via an Apple TV to a larger screen.
The Foxtel Go service appears to be carefully constructed so as not to dilute Foxtel’s premium value claim, but to add to it, by using the potential of the NBN and evolving mobile data networks to allow multi-user, multi-screen, on-demand/catch-up, and mobility access to subscribed content, thus better meeting consumer preferences. For that reason, it appears as more an anti-churn strategy by creating further reasons for households not to have to look elsewhere for news and entertainment, being able to get Foxtel Go anywhere, anytime. Foxtel have also announced another OTT service, called Foxtel Play, that provides a sub-set of their content for viewing on Internet connected devices (Foxtel Management Pty Ltd 2013b).

**Innovation competition or price competition?**

All of these emerging commercial online video streaming services might lay claim to being examples of ‘innovation competition’. They are providing new types of services and responding to user preferences in regard to time, place and devices, which are being moulded by other online experiences. For new players such as Netflix, there is the opportunity to innovate on cost and quality in the production of new content. For incumbent players, there is a distinct reticence to undermine existing profitable services through price competition but a willingness to try to add value through additional access options made possible by the increasing availability of high-capacity broadband services.

OTT services have the potential to disintermediate, allowing sports bodies themselves, for example, to distribute content to end-users via subscription or pay-per-view models. This may work for smaller sports that do not attract large sponsorships or TV coverage, which may involve licensing restrictions. However, it may also herald the move of larger sports bodies to a more direct relationship with their viewers. In the end, mass audience TV media may still have access to exclusive rights for major events, but these may become more highly targeted in respect of time and audience, thus opening up opportunities to fill the gaps through OTT services.
3. NBN-IPTV as re-intermediation

In this article, IPTV refers to linear TV programming delivered over managed IP networks such as the NBN. It is distinguished from on-demand, short-form video content (e.g. films, TV episodes or YouTube videos) delivered over the public Internet, which have been referred to here as OTT services.

IPTV generally consists of one or a number of linear TV channels that are subscribed to as part of a telecommunications bundle from an RSP. For example, iiNet offers a home phone, Internet and entertainment bundle utilizing Fetch TV content (IINet 2013). Optus offers similar bundles with Fetch TV (Singtel Optus Pty Ltd 2013) while Telstra offers a home phone, Internet and entertainment bundle with Foxtel content (Telstra Corporation Ltd 2013). These bundled services are delivered to the home over managed broadband Internet access services, such as ADSL2+, HFC cable or now the NBN. In essence, it is a subscription TV (STV) service that can only be accessed with a bundled broadband service.

In Australia, IPTV is still in its infancy. As at June 2012, of 473 ISPs in Australia, only nine were offering an IPTV option with an estimated 5% take-up (Australian Communications and Media Authority 2012: 19, 27). This is in contrast to some overseas jurisdictions. In Europe, IPTV is becoming very attractive to telecommunications companies with France leading the way with the highest take-up of IPTV by broadband Internet subscribers, 51% at the end of 2011 (Point Topic 2012, though cf. Andrews 2012). KPN in the Netherlands at the end of 2012 had achieved over one million IPTV customers, with a TV market share of 23% and claiming that ‘IPTV is an important driver behind take-up of triple play packages’ (KPN 2013: 7). ABI Research projects that by 2018 IPTV providers will take an 18% share of the global $304 Billion STV market (ABI Research 2013).

IPTV has been named the ‘killer app’ for next-generation broadband networks (cf. Xiao et al. 2007) and with the aggressive roll-out of such networks around the world there is a focus on the potential of IPTV to increase subscriber revenue beyond that of the standard broadband and
telephony service offerings. This appears to be the case also in Australia, where the NBN will provide an IPTV ‘channel’ on the fibre-to-the-home access service, along with a multicasting service, which enables content to be transmitted simultaneously to multiple end users from the NBN POI. That is, with one network connection, households can have triple-play phone, Internet and TV services, and IPTV service providers, with a backhaul connection to just 121 NBN POIs, can essentially have a national footprint. On the potential impact of this new functionality NBN Co itself comments:

It could also have significant effects on the way viewers consume content. The fibre optic NBN is designed to be capable of supporting ‘4K’ or ‘ultra high definition television’ channels that consume much more bandwidth than many existing networks can support. And the NBN is designed not only to enable superfast download speeds. High upload speeds could allow consumers to interact with, or even participate in, their favourite shows. (NBN Co Limited 2012)

RSPs, such as iiNet, and IPTV providers, such as FetchTV, appear to be keen to put this functionality to use. For example, iiNet was the first RSP to be certified by NBN Co for this service, announcing that ‘The NBN Multicast service lets us deliver awesome, high quality video entertainment to our customers, such as our innovative FetchTV service’ (iiNet 2012). In fact, it seems FetchTV is so keen to make its content available over the NBN that it has even considered investing its own capital in backhaul provision to ensure that its services can be accessed by RSPs from all of the NBN POIs: ‘The […] company planned to use the backhaul to create a shared multicast domain that would let its Internet provider partners deliver service to homes on a more equal footing with Foxtel and Telstra’ (Colley 2012).

The Australian Competition and Consumer Commission (ACCC) appears to think that IPTV, with bundling, will increase competition in the STV and telecommunications markets, and relied, in part, on this argument in allowing the 2012 Foxtel-Austar merger to proceed.
The ACCC expects that as telecommunications networks develop, the undertaking will create opportunities for new and existing competitors to develop differentiated and more affordable subscription television offerings that are attractive to consumers. These offerings, which could be bundled with other telecommunications services, would be likely to improve competition in both subscription television and telecommunications markets as retailers increasingly seek to bundle IPTV services with other telecommunications products.

(Australian Competition and Consumer Commission 2012)

Some two years prior to that, Peters (2010), assessing the prospects and constraints for IPTV in Australia, noted that:

Even the Federal Government appears to believe that the rapid and widespread uptake of such new services is imminent, with the Minister of Broadband Communications and the Digital Economy citing the impending arrival of such services as a major reason for the Government’s recent decision to lower the licence fees payable by commercial FTA television broadcasters for their use of broadcasting spectrum. (Peters 2010: 27.1)

Even if IPTV is able to bring greater competition and consumer choice to TV markets, does this portend the potential disruption of those markets? NBN-IPTV has the potential to disintermediate TV type entertainment by unbundling desirable content from more expensive STV packages and allowing consumers to choose those channels that are of most interest. However, for content providers wishing to utilize the NBN as a distribution network to the home there are basically two options.

- As described above in Section 2, they could utilize a web-hosting video streaming platform to offer episode based OTT on-demand video content, accessible via any RSP’s broadband service.

- They could develop a continuous IPTV channel that can be offered on a wholesale basis to one or more RSPs, who are then able to bundle this channel with their basic broadband service. This is the Fetch TV model. A variation on this option would be for the content provider to become a
full-fledged RSP in their own right and thus offer the content and the broadband service. For example, this has been mooted as a possible future Foxtel model, offering triple-play in its own right (cf. Telstra Corporation Ltd 2012: 8).

NBN-IPTV, then, presents as a classic example of re-intermediation, because the NBN construct dictates that it is a service only available together with the basic fibre access service. RSPs become a new distribution channel for TV content as part of a bundle of products. Unless content producers or aggregators wish to become an RSP in their own right, they are dependent on these new intermediaries to reach households over the NBN fibre. However, it does provide unique, single channel, content producers an efficient passage to market. For example, in the United Kingdom, it is possible to subscribe to MUTV for an additional AU$9 or so per month over and above a basic STV service (Manchester United Ltd 2013a).

NBN-IPTV then is unlikely to result in the wholesale disruption of the current STV and FTA broadcast markets, since it is basically similar in its channel format and in its subscription payment model. However, it will potentially result in a lower barrier to market entry for content producers and so enable a greater number of channels and thus competition for eyeballs. This should lead to more opportunity for innovation and creativity on the production side and thus success may be greatly dependent on content deals. While it may result in greater fragmentation of audiences, its IP-based technology will allow better audience tracking leading to more sophisticated marketing segmentation and better targeting for advertisers.

The new NBN-IPTV facility in Australia, then, is likely to be less attractive to current TV producers and broadcasters and more attractive to telecommunications service providers seeking to add entertainment services to engage and lock-in their customers through bundled packages.

TV is a far ‘stickier’ proposition than most telecom services, and we are already seeing consumers in some markets choosing their entertainment provider for their communications requirements as well. In order to simply survive in the retail communications sector, operators now have no choice but to provide some form of IPTV and multi-media services, even if
those services do not make up for the shortfall in their other revenue streams. (Berendt 2008: 5)

3. The NBN and disruptive users

Bell Labs reports that their ‘research into the consumer trends driving online video consumption […] showed that consumers are looking for a more flexible video experience’ (Alcatel Lucent 2012: 2). They describe a range of emerging consumer preferences for viewing TV or video content, many of which are extensions of existing trends. These might be summarized as follows:

- **I want it when I want it** – Consumers are preferring services that allow content to be consumed at any time, i.e. on-demand. Further, consumers do not want to wait for global content according to local release timetables but may turn to peer-to-peer networks to acquire it as soon as possible after first release.

- **I want it where I want it** – Consumers are massively taking to smart-phones and tablets as second and third screens for watching video away from the home, on the train, tram, bus, at cafes, when on holidays, in the back seat of the car.

- **I want to interact with it** – Consumers are taking to using social networking tools, often via a second screen, while actually watching TV.

- **I want it all to be available at the cheapest price** – Consumers are preferring searchable global playlists, cheaper pay-per-view or all-you-can-eat monthly subscription services, and only want to pay for what they want to use.

Many of these preferences have been inspired by new technologies and devices such as P2P file sharing, the popularity of touch-screen smart-phones and tablets, and the increasing capacity and coverage of both fixed and wireless broadband networks (cf. Bruns 2009; Newman 2012; Garvin 2013; Brown and Barkhuus 2006; Baldwin 2013; Gardener 2012).
While these consumer preferences tend to be highlighted by those forecasting major industry disruption, they may be mainly associated with a ‘lean forward’ mode of viewing. By this is meant a generally intentional, individual, interactive mode of viewing, such as in surfing the web. Other research, particularly in the household context tends to confirm that TV viewing remains, however, a ‘lean back’ or more passive form of experience. Neilson (2008, cf. Rue 2010) summarizes it thus:

On the Web, users are engaged and want to go places and get things done. The Web is an active medium. While watching TV, viewers want to be entertained. They are in relaxation mode and vegging out; they don’t want to make choices. TV is a passive medium. (Nielson 2008)

Further, leisure activity studies of families at home indicate that TV watching is predominantly a shared activity: ‘Not surprisingly […] television watching was the primary activity that parents and children shared’ (Crosnoe and Trinitapoli 2008: 43); and

Television viewing […] was the most common indoor leisure activity by a large margin. This held true during parents’ shared leisure time as well […] If no children participated, parents in heterosexual married couples did almost nothing other than watch TV (83% of leisure observations) or read (15% of observations). (Beck and Arnold 2009: 136)

Watching TV, then, presents as a shared or social activity, and now with the rise of online social networks, not just within the immediate family.

The social networking phenomenon and the ever-growing number of subscribers to services like Facebook create a tremendous opportunity for a paradigm shift for TV viewing. TV is rediscovered as ‘social’. (Montpetit et al. 2011: 525)

Yet, while TV plus social networking tends to increase people’s ‘lean forward’ engagement with the content, it is still argued that the immediate and immersive nature of TV on a large screen characterizes it as a ‘lean back’ experience.
But for most people the immediacy and immersive aspects of TV and the lean back TV experience must remain. TV is still mostly a passive activity. Social TV makes watching TV less passive but still requires the overall viewing experience. (Montpetit et al. 2011: 526)

So, on the one hand, many users, based on their computer web-browsing experiences and the growing availability of online video content, not to mention the use of PVRs, are watching TV in very different ways to ‘the way the directors and producers intended their show to be watched’ (Henry 2013) and, it might be added, to the way that the networks primarily deliver it. On the other hand, the social and ‘lean back’ nature of TV viewing on the big screen tends to favour the traditional mode of linear content and channel surfing.

One of the user preferences that is making itself felt strongly in Australia and starting to impact the TV networks is the desire for immediate access to global first-release content. Mark Scott, CEO of the ABC, has described how they used their iView platform, not for catch-up TV in this case, to give access to the first episode of a new *Dr Who* series immediately after initial broadcast in the United Kingdom knowing that Dr Who fans would otherwise make use of alternative download options to gain timely access (Scott 2012). Foxtel’s new deal with HBO now allows ‘many of the key dramas broadcast express from the US as soon as the day after their original air-date’ (Foxtel 2012). It seems clear that both are responding to the increasing use of P2P access to TV episodes, particularly among younger Internet savvy consumers, to satisfy the demand for immediate access to global first-release content.

At the very least, then, we might disagree to some extent with Miller’s (2010) dismissal of the role of users in driving change in television markets, even while agreeing with the many other structural forces at play:

Whatever happens to TV in the next few years, we must bear in mind that its history is not a tale of visionary inve(n)(s)tors finding means to satisfy the existing curiosity of audiences – a consumer-driven market – but an uncertain dance of law, the state, capital, labo[u]r,
performance and interpretation that reveals complex, shifting power relations. (Miller 2010: 194)

5. How are the incumbents faring?

Television networks in Australia appear to have been doing it tough over the last few years.

The three main free-to-air (FTA) television operators in Australia are feeling the pinch, as a fragmented audience and rising costs put pressure on debt-heavy balance sheets. Industry revenue for 2012–13 is estimated to be $4.98 billion, an increase of just 0.5% on the previous year. Commercial advertising revenue is estimated to make up $3.73 billion of industry revenue, and has remained largely stagnant since the global financial crisis, as advertisers split their budgets across the increasingly large spectrum of media outlets available to audiences. (IBISWorld 2012)

Some commentators see a ‘Storm of change coming soon to TV’:

But free-to-air television is approaching an evolutionary crossroads […] One commercial network – Nine – was taken to the brink of collapse this week and another – Ten – announced a result soaked in red ink and a program of job cuts […] Next year [2013] is expected to be a watershed for the broadcast industry. For the first time the amount of money spent on advertising over the Internet will match the ad spend on free-to-air television […] The biggest threat TV faces is clearly the Internet. (Ferguson and Idato 2012)

Others make pronouncements on ‘Why NBN will kill the TV networks […] Video may not have killed the radio star. But the NBN is about to kill the television station’ (Johnson 2012), while those with an interest in telecommunications networks make bold predictions about changing viewer preferences:

The proportion of time spent watching OTT and managed (PayTV) VoD services will grow from just over 33 percent to 77 percent. This will come at the expense of linear TV services, whose relative share of time will drop from 66 percent to 10 percent. (Alcatel Lucent 2012: 3)
Much of this commentary reflects what has been said about the USA TV market, where high capacity broadband and back-catalogue content deals, together with competition from cable companies, appear to be having a significant impact on the TV broadcast networks.

In early 2008, JP Morgan had estimated the worth of NBC Universal at $55 billion. Yet when GE sold a controlling interest to Comcast in December 2009, the deal valued the company at only $30 billion. Comcast wanted NBC Universal’s cable channels [...] so inconsequential was the broadcast network that it wasn’t even mentioned until nine-tenths of the way through the official, 2,700 word announcement. | But it wasn’t just NBC. The audience for all four of the major US broadcast networks was dwindling fast. (Rose 2011: 188)

But what does the actual Australian data tell us? Advertising income is key to the fate of commercial broadcast media and indications are that it is print media that is suffering significantly from online substitution while TV has remained relatively stable over the last three years (see Figure 1).

![Figure 1: Distribution of advertising expenditure by main media category.](image_url)

*Source: CEASA Report (quoted in Australian Communications and Media Authority 2012: 55).*
If we look at STV and commercial TV network share of all TV in Australian metropolitan markets, again it would appear that except for Network-TEN, which may have suffered from management issues (cf. Idato 2012), STV and the commercial broadcasters have had a relatively stable share of audience over the last few years (ASTRA 2012).

Finally, if we look at STV take-up in Australia, we again see a relatively stable, possible low-growth, situation in regard to total number of subscribers over the last few years (see Figure 2).

![Figure 2](image-url)

**Figure 2:** Subscription television take-up 2002 to 2012.

Source: (Screen Australia 2011) and (ASTRA 2012).

So, might it actually remain business as usual for TV in Australia? Will the tentative end of the Global Financial Crisis signal a new era of growth in audiences and advertising dollars?

Of course, what the data does not yet tell us is the potential impact of the NBN, given that it is very early days in its roll-out, including the utilization of its IPTV functionality. However, what the data do tell us is that online’s share of everything, including eyeballs and advertising dollars, is growing rapidly. This, together with online’s ability to provide content in ways that consumers are preferring, namely on-demand with mobility and interactivity, set the scene for potential disruption to, but probably not the obsolescence of (pace King 2013), the incumbent TV industry in Australia.
On the other hand, experienced industry executives like Rick Ellis (Group Managing Director, Telstra Media) note that structural issues, costs and the importance of scale in particular, will favour the FTA and STV incumbents: ‘And then I look at a Netflix business, and I apply the same metrics of Netflix to an Australian business with eight million households and it grosses up to about a A$90 million business. Who cares?’ (quoted in Wilton 2012); and ‘even in an NBN world the estimated cost of delivering HD (high definition) linear channels to a television set is going to be five times (the cost) of cable and satellite and digital terrestrial (transmission)’ (quoted in Bingemann 2012).

Conclusion

The Australian telecommunications, TV and video content industries are all experiencing rapid change as the opportunities afforded by high-capacity broadband services make their presence felt. Perhaps to try to diminish the disruptive potential of technological change, many of the larger companies are extending their content offerings into the online world of the NBN and connected devices such as new TV sets, tablets and smartphones. However, they appear to be seeking to do this without compromising their traditional business and revenue streams, be they cinema, STV or FTA TV. One danger inherent in this adding more value strategy is that cheaper, good-enough, services might come in below such premium service offerings. As noted by Christensen (1997) in regard to the potential ‘performance oversupply’ of a product or service: ‘Generally, once the performance level demanded of a particular attribute has been achieved, customers indicate their situation by being less willing to pay a premium price for continued improvement in that attribute’ (Christensen 1997: 169).

This may be where the challenge lies for the incumbents faced with relatively small but newly emerging markets for alternative content. Again, Christensen’s principle of ‘match the size of the organisation to the size of the market’ echoes loudly: ‘large, growth-oriented companies face the problem that small markets don’t solve the near-term growth needs of large companies. The markets whose emergence is enabled by disruptive technologies all began as small ones’ (Christensen 1997: 142).
The real issue, then, may not be one of outright disruption, but of significantly increased competition for content and for audiences, and so advertising or subscription dollars. This pressure may lead to mergers or to investing in other media channels, such as those delivered over the NBN (cf. Cleary 2013). The role of regulation in Australia, such as the anti-siphoning list and Foxtel-Austar merger undertakings, is also of continuing importance in defining who can (exclusively) get hold of desirable content in order to build those audiences. At this stage, Burke (2013) perhaps provides the most astute observation:

Televisions are going to remain the screen of choice for viewing video content; OTT content will increasingly act as an alternative TV channel delivering more of that video content; second screens will be used to watch video on the move and away from the main TV; but it is the influential effect of second screen applications that could change TV economics forever. This influence on what programmes to watch, what advertising messages to believe and what products to buy will be the television monetisation battleground of the future. (Burke 2013)

To conclude, this article set out to show the plethora of broadband-based choices that are either more recently underway or could be opened up to Australian television viewers in the next few years – notably with catch-up services, web hosting video platforms offering OTT on demand video content and the looming prospects of IPTV. So, like many other countries, Australia is in a potboiler innovation phase that is coming at established television players. This spirited phase of innovation, however, is more highly focused on new modes of distribution than on experimentation with new forms of content. Predicting the likely level of disruption is more elusive in that the data regarding the television industry’s retention of its advertising revenue and the overall size of audiences watching its major programmes shows that while it may be thinner, it is still alive and reasonably well. Extinction by disintermediation is not likely for an industry that has already re-mediated itself, notably with all of the television major players taking up opportunities for second or third digital channels in recent years. But the sleeper is surely what happens when high capacity affordable broadband becomes readily accessible to almost all Australians. Only time will tell.
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