



TELEVISION'S NEWCOMERS: NETFLIX, APPLE, GOOGLE AND FACEBOOK

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This paper essentially deals with innovation related to Internet Television, not Internet Protocol Television (IPTV), which is so widely seen as a major new application for NBN Co. It constructs four business models of Internet television related to the recent innovation offered by four American based corporations, each of whom is relatively new to television. It offers an analysis of Netflix as the aggregation model, Apple TV as continuing its iPhone walled garden business model but this time for television, Google TV where convergence for television would be free, and also of movies becoming available on Facebook, the progressively more ubiquitous social media site. None of these players are original television content creators. All are highly dependent for content on the established commercial television networks in the USA, whose management face complex dilemmas as to whether it embraces the opportunity to make more programming available to new outlets, but at no risk to their programming rights, or to their lucrative advertising base. The development of Internet television, and how it comes to compete or co-exist with IPTV, may be a broadband game changer, not only in the USA but also eventually for Australia.

INTRODUCTION

A popular genre of media industry conferences in the United States canvasses the possible long-term effects of recent innovations in the television industry. Three of the largest communications corporations in the world, namely Apple, Google and Facebook, have recently entered the United States television markets. However, the boldest challenge to date has come from a newer and much smaller US company, Netflix. Each of the new foursome has a different, but related, business model for television. This paper investigates what each of the foursome offers television viewers, what is known about viewers' responses, and what evaluation can be made at this early stage of the likely impacts on the established broadcasters.

An important distinction needs to be made at the outset that this paper deals essentially with innovation related to Internet Television, not Internet Protocol Television (IPTV) and essentially service distinctions are made here. With Internet TV (Apple TV, Google TV, Facebook movies) the consumer pays for the content package separately, and in addition to, the broadband access package. Therefore the consumer pays Apple, for instance, for the movies, but possibly Big Pond for the broadband service. There is no guarantee of the quality of service. The content provider may use a VPN (Virtual Private Network) to deliver the content, but all that means is securing the content from copying, or eavesdropping, or recording, as best they can. So it is delivered over any Internet Service (ISP) providers' network, but encrypted and decrypted. However, with IPTV (Foxtel on T-Box, or Fetch from iiNet) the consumer pays the Internet Service provider (ISP) for both the content package and the broadband delivery package. This allows the ISP to "guarantee" some quality of service by putting in place the necessary infrastructure and Content Delivery Network (CDN) to ensure that the content is coming from the nearest possible server to the consumer's premise and over their own networks.

To date, the debates about possible new services for Australia's National Broadband Network (NBN) have largely focussed on IPTV, and its likely new associated players, whose new investment is important to the long term commercial success of NBN Co. IPTV services could be made available as the video component of 'triple play' services – voice, internet and video services- or as managed single service offerings by a content supplier, delivered by one or more Internet service broadband providers. The question that arises is whether new developments in Internet television are likely to pose a possible threat, or an opportunity, to IPTV services in the context of the roll out of the NBN.

In 2005 a consultant futurist, Mark Pesce, predicted draconian changes would result from the long term effects of the peer-to-peer file sharing technology, Bit Torrent, and lead to the death of TV as we have known it. He argued in his provocatively titled paper 'Piracy Is Good: How Battleship Galactica Killed Broadcast TV':

October 18th 2004 is the day TV died. That evening British satellite broadcaster Sky One – part of News Corp's BSky B satellite broadcasting service – ran the premier episode of the re-visited 1970s camp classic *Battleship Galactica* (as an episode titled '33')...A few hours after the airing on SkyOne, '33' was available for Internet download. From its premiere, *Battleship Galactica* has been the most popular program ever to air on the Sci Fi Channel. Piracy made it possible for word of mouth to spread about Battleship Galactica ([Pesce 2005](#)).

Posterity may eventually be kind to Pesce regarding his overall prediction about the bleak future of broadcast television, but this paper argues that the change processes are likely to be different from what he suggested in 2005. New services made possible by Internet, broadband and mobile networks are facilitating widespread changes to broadcasting as we have long known it. No longer does a relatively easy transition to a new order seem possible: attention is now centred on threats to destabilise long-standing institutions.

This paper constructs four business models related to global innovation begun by four American based corporations, each of which is relatively new to television: first Netflix as the aggregation model; second Apple TV as walled garden; third Google TV: convergence is free; and fourth Facebook where social media is ubiquitous

NETFLIX: THE AGGREGATION MODEL

Reed Hastings, born Boston, Massachusetts 1980, one time teacher of mathematics in Swaziland during the mid 1980s, co-founded Netflix in 1998, as one of the few survivors of the dot.com crash of the 1990s. In 2003 Netflix patented a hard drive that could download movies, but it cost consumers \$300 to install, and it generally took up to eight hours to download a two-hour film because of the lack of sufficient network capacity. So the company decided instead to create a mail order business, and by 1998 this became the largest online DVD mail rental service in the USA. Then in 2007 Netflix launched a new service streaming movies to users' computers, but only for users in the USA. Late in 2010, the company began its 'watch instantly' streaming content service essentially to be delivered to PCs, but now with the added prospect of delivery to set top boxes *for television* as well. Netflix announced the new service plan (again only for Americans) late in November 2010:

We are now offering a new \$ 7.99 a month plan which lets you watch unlimited TV episodes and movies streamed to your computer or TV... The new plan, which does not include DVDs, is a great option for the increasing the number of members who only want to watch instantly. ([Becker 2010](#))

The 'unlimited episode and movie offer' is actually an exaggeration because rights agreements inevitably constrain what Netflix can offer its customers. An examination of the Netflix one-month-free trial site shows that its content strength is based on the rights it holds to movie titles, such as those from Paramount Pictures, MGM, 20th Century Fox, Sony Pictures, and Time Warner – all big movie studios, but restricted to back-list movies. Hence Netflix is essentially an impressively successful movie streaming organisation that has built a

clear market advantage over its main streaming competitor Hulu, another back-list organisation offering limited broadcast television content, but again to USA customers only.

Netflix offers the promise of multi-platform ready access – sometimes referred to as ‘hybridity’ – by promising that subscribers can:

- a) ‘Watch instantly’ on a computer – including a Mac
- b) Connect devices such as Wii, PS3 and Xbox 360 to a television set.
- c) ‘Watch instantly’ on iPad and iPhone ([Netflix 2011](#))

However, Netflix customers point out that only a few subscribers in the USA ‘have a broadband speed capable of giving them Blu-ray quality or often only DVD quality’ ([Taub 2010](#)), and that the quality of the vision often varies according to the device used irrespective of the speed of connection. This same analyst estimated that only 8% of Netflix customers in late 2010 viewed the content exclusively on their television sets. But substantial investments in high capacity broadband networks will surely act as a catalyst for more services being delivered directly to television sets in the future.

One of the problems in making any assessment as to the level of likely long term effects of Netflix is that key corporate financial, advertising, and audience data related to the take up of Netflix to date on key stakeholders are not generally publicly available. Private consulting companies offer evaluative market data, but their reports are only available to clients who invariably pay a large financial cost for such reports. Occasionally though, the work of audience measurement companies about users’ viewing habits is reported in the mainstream media. One such estimate by the company Rentrak OnDemand Essentials, is that USA cable video-on-demand network television entertainment significantly increased by 35% between 2009 and 2010 ([Miller 2011](#)). Also, some network traffic estimates are similarly available, such as that reported by Sandvine that traffic levels showed growth such that by October 2010 Netflix accounted for 20% of the downstream Internet traffic in the United States between 8.00pm and 10.00 am – remarkable indeed if accurate ([The Online Reporter 2010](#)).

Investment banker Jonathon Knee has suggested that most observers expect Netflix to grow its subscriber base from its current 23 million (USA only) to 30 million by the end of 2011, making it easily the largest video service in the country. He explains why he sees this as somewhat unnerving:

Netflix is primarily in the business of aggregating entertainment content created by other companies and selling access to it as a subscription service to consumers. In a media culture committed to the proposition that ‘content is king’ the robust success of a mere distributor is something incomprehensible and frankly, a little unnerving, especially while those responsible for the creative lifeblood that flows through its veins struggle for profitability ([Knee 2011](#)).

There is already some evidence of cannibalisation of cable/ pay television networks in the USA. Some 37% of Netflix subscribers between the ages of 25 and 34 recently stated that they choose Netflix instead of a pay television service ([Cerra and James 2011](#)). Also it has emerged in major web cam discussion forums of astute video production editors the notion of ‘cord cutters’ – people cancelling, so cutting the cord of their pay cable boxes, in favour of Netflix TV viewing via iPad ([Cohen 2011](#)). Clearly the Netflix business success poses raises major issues for the established television content providers, and holders of rights, but it is difficult to assess their position because little impact data is available about revenue effects. In keeping with the long term managerial practices of commercial network television, their executives rarely engage publicly in industry debates.

Press reports at the time of writing suggest that Netflix is now negotiating with Internet service providers in Australia with a view ‘to begin operations in Australia in the next 12 to 18 months’ ([Foo 2011](#)).

APPLE TV: WALLED GARDEN

Views about Apple as a corporation and its strategies tend to be polarised. One school of thought is that Apple has designed its applications for users as a 'walled garden' or 'trespassers will be prosecuted' control model pitched against other competitors, and that this is anathema to the more 'commendable' open source movement.

A contributor to *Wired* ([Vogelstein 2011](#)) argues this case in the context of the iPhone:

Apple exerts complete control over the iPhone. It builds the hardware. It designs the operating system. It runs the marketing campaigns. And it curates and polices the Apple Store, refusing programs it deems potentially offensive or a threat to its own business.

The contrary overview of Apple as a corporation is one of deserved rewards for an entrepreneurial group that risked its capital, and backed its own people and their concepts. Users choose Apple in droves, so the argument goes, because it has the most appealing services, and users are free to go to Nokia or Android, or elsewhere, for a different phone, if they wish. Moreover Apple chooses to reinvest much of its handsome profit in other modes of innovation.

So how might these two schools of thought be applied to Apple's latest offering, Apple TV? Apple's first attempt to capture the television movie market was announced in September 2006 when it offered an iTunes compatible streaming media device intended to revolutionise how Americans viewed television. This coincided with Apple's extraordinary success in launching its iPhone, and simultaneous change of corporate name to signify its ambitious diversification – Apple Computer became Apple Inc. However consumers widely rejected Apple's first foray into the American on-line home television market in the USA. Users highlighted two main problems, namely that the price of the box was too high, and that 'user settings for streaming or copying from iTunes are not stored' ([Critics 2008](#)). Subsequently the first launch of the service was discontinued.

Apple's second generation digital TV receiver (this time with a mere 256 MB storage) was released to the US market in September 2010. The company's rhetoric on their site made made everything seem so easy:

Just plug the power cord into the wall and connect Apple TV to your widescreen TV using an HDMI cable...Apple TV (also) gives you access to some of your favourite Internet content ..(and) with Apple TV, every megapixel of every photo looks amazing. Big, bold and in glorious HD. It's the treatment your digital life deserves. (<http://www.apple.com/au/appletv/>)

This version of Apple TV is the movie equivalent of the [iTunes music store](#), where users can access movies through [iTunes at](#) one third of the price of the first version of Apple TV. Consumers are now able to rent movies and TV shows, and also stream audio and video podcasts. Version Two also allows access other content from [Netflix](#), [YouTube](#), and [Flickr](#). Apple TV is inherently attractive in terms of the overall content by also allowing consumers to use an HDTV set to view photos, play music, and watch video that originate from limited Internet services or a local network. But its centrepiece service was always offering movies on-line to homes.

The new \$US 99 set top box (but about \$130 in Australia) has the simple elegance of what has become the trade mark Apple design, and is a quarter the size of its predecessor. However consumers must buy a separate cable to connect to the TV's HD port, generally at an additional \$60 each. The rental system only works one way in that users can rent TV shows from a computer, which can then be streamed over Apple TV, but recorded TV cannot be played on a computer. This is in contrast to cable TV (such as Foxtel), where a subscriber can record a movie screened on their television set on a DVD, and then re-play it on a computer. Apple TV consumers are also able to stream audio and video podcasts.

So why did Apple make the move into the television field? Apple CEO Steve Jobs explained that originally the on-line movie players had failed in their initial attempts to bring video from the home computer to the living room due to a failure to understand what consumers wanted. At the time of the launch of Version 2 he said:

No one has succeeded yet. We tried with Apple TV. Apple TV was designed to be an accessory for iTunes and your computer (version One). It was not what people wanted. We learned what people wanted was movies, movies and movies. ([Edwards 2008](#))

So Apple created an online movie rental service, originally for USA viewers only, which included films from most of the major studios – Disney, Fox Touchstone, Miramax, MGM, Lions Gate, Paramount, New Line, Warner, Universal, and Sony. Films could also be watched from other platforms of the users' choice – Macs, PCs, iPods, and the iPhone – more hybridity. Renters are allowed 30 days to download and view. The movies available are not merely B grade re-cycled product. Within one month of the February 2011 Academy Awards presentations, Apple TV was offering two of the nominated best picture films, *The Social Network* and *Black Swan*. Ted Nelson (personal interview, Melbourne, April 2011), founding designer of Project Xanada, attributed the overall success of Apple Inc to Steve Jobs, whom he described as 'a talented former movie director who understands *the soul of the users*.'

Others would argue that Apple TV again guarantees the company considerable control over the content on offer by using its proprietary set top box. Apple TV is compatible with the files that only play iTunes, and cannot facilitate downloads from other videos. Viewers can, of course, also use their Apple remote to stream content from Apple's associated products – iPhone, iPad or iPod Touch. But an Apple TV user cannot play back from a USB stick, or stream directly from their computer. All the result of careful product design so this is apparently another manifestation of the Apple walled garden principle.

GOOGLE TV: CONVERGENCE IS FREE

At the annual Consumer Electronics Show, held in Las Vegas in January 2011, the principal focus was on 'web friendly TV' and especially on those manufacturers who were not merely launching yet another separate set top box to access the Internet from television, but on new models that actually had Internet capability built into the television set itself. The associated conference discussions centred on the 'hot button' issues related to multiple predictions about the forthcoming battle between Apple TV and Google TV.

Earlier, on May 20, 2010 Google had announced plans to introduce Google TV on its Official [Google blog \(2010\)](#) claiming they were offering something that the television lacks – the web:

What if we helped people experience the best of TV and the best of the web in one seamless experience? Imagine turning on the TV and getting all the channels and shows you normally watch and all of-the websites you browse all day including your favorite video, music and photo sites. We're excited to announce that we've done just that.

Well not quite. At this stage Google TV is basically an operating system that has emerged from collaboration between Google and Intel, whose Atom's chips power the system. Significantly though there is not merely one Google set top box comparable to the Apple proprietary business model. Instead Google consumers can make a choice between a set top box connected to an existing television manufactured by Logitech, or a new 46inch Sony television set that has Google search functions built in (currently at a cost of about \$US 1400). At the time of writing earlier promises from other possible Google TV device manufacturers, notably Toshiba, Samsung, and Vizio, have not been realized, apparently in response to requests from Google to delay releases until some of the current operational issues are resolved.

The Google TV on offer at present is a software platform that can stream video, including material from Netflix and You Tube, and can also stream music and photos. Google TV

customers can search the web, via their browser Chrome system, and also stream content from their computer and from the Internet. There are currently no comparable applications to Apple available, but there are plans to eventually offer Android applications, and consumers will eventually be able to use their iPhone or Android phone to operate Google TV. For Android to become involved raises another dimension of the open v closed systems debates. One commentator of the former school argues:

Android, by contrast (with Apple), prides itself on its lack of control. It gives away its operating system for free to anyone who wants it – though manufacturers must submit their phones if they want to access its apps markets or run optimised versions of Google apps ([Vogelstein 2011](#)).

In June 2011, Google in a surprise move, purchased Motorola Mobility and this move was widely seen as a strategic initiative to lock up valuable Motorola patents. An alternative view was that this represents a major shift on Google's part in signalling a move towards the Apple business model:

Many have theorized about the strategy behind blowing two years of Google's profits on a hardware operation... Does it mean that its Motorola arm will produce beautiful Android phones for which people will pay an arm, a leg and a couple of days of their lives standing in line? There has also emerged the notion that now Google can be like Apple – a company with its own hardware/software infrastructure that welcomes you into its warm bosom and keeps you there with untold varieties of emotional sustenance... Real people don't have to pay to use Google products. They don't have to really enjoy them. They just have to use them, so that Google can make money from the advertising... Apple works the other way around. It looks at real people, how they live, how they try and how they suffer to bring a level of fascination, ease and emotional uplift through gadgets that become friends, toys and lifelines... However, Google fancies itself as having brains bigger than Mars. So why shouldn't we wonder that the company would prefer not to be like Apple, but to be post-Apple? ([Matyszczuk 2011](#)).

So what of the users' views? Google's own publicity promotes the notion that it has created the ultimate in convergence. Jessica Guylm, writing in the *Los Angeles Times* in August 2010 described some enthusiastic responses from trial users:

Brittany Bohnet and fiancé Dave Morin used to plop in front of the television in their San Francisco living room with a smart phone in one hand and the remote control in the other, computers resting in their laps as they switched their attention from screen to screen. But with Google TV, the young couple can watch the latest episode of AMC'S Mad menus, and check updates from friends on Facebook and on Flickr showing off photos of Morin's marriage proposal – all on one screen.

According to Morin, (partner of Google employee Bolmet who was one of 400 Google staff trialling Google TV), 'People don't get what the possibilities are' ([Guynn 2010](#)).

Views are polarised about how Google TV will fare in the market place, but its launch was followed by an avalanche of criticism. One of the best encapsulated critiques described this initiative as being like 'an incomplete jumble of good ideas only half realized, an unoptimized box of possibility that suffers under the weight of its own ambition' – that 'Google TV is a Trojan Horse with a home theatre PC inside' ([Patel 2010](#)). Further, there is much criticism about several usability issues.

This much is clear: Google TV may be interesting to technophiles, but it's not for average people. On the great timelier of television history, Google TV takes an enormous step in the wrong direction: toward complexity. For starters, it requires a mouse and keyboard. That's right. For your TV. Hope you weren't going for that rustic look in your TV room. So why do you need a keyboard? First, you need it to navigate Chrome, Google's Web browser. Second, you need the keyboard for Google TV's star feature: Search. ([Pogue 2010](#))

Google faces substantial hurdles if this initiative is to succeed. Briefly, end-users will need to be persuaded of the value of developing new habits and therefore to hook into either a new set-top box, or buy a new television set that runs on Google software.

Competition between Apple and Google is set to intensify as they progress their strategies. Steve Jobs, Apple CEO, until recently when speaking at trade shows in the U.S.A has underplayed how he sees the future prospects of Apple TV competing with Google. He has portrayed this venture as 'a hobby' in that he and his company colleagues are allegedly fully aware that any serious attempt to tackle head on the established network television would be a herculean task. So this innovation is apparently merely micro-consumers can download an enjoyable movie, courtesy of Apple TV! By contrast, Google TV has devised an ambitious interface that offers not only normal television programming but also the additional option of search functions on the general Web access and web video.

In terms of its future prospects there is the major thorny issue of finding incentives for the big American TV networks – ABC, CBS NBC, and also Fox – to co-operate with Google and risk what they see as their 'signal control' without an as yet identified business model for them. There are many doubters of a bright future for Google until resolution of some kind of acceptable long time terms is agreed in co-operation with the big American TV networks. However it is worth remembering that so much of the creation of new wealth in the communications industry in recent years has come from the new non-establishment companies, such as EBay, Amazon, Netflix – but most of all from Google. Google TV is clearly pitched at the \$ US 70 billion per annum television advertising market, as well as the \$70 per consumer monthly cable and television market in the USA.

This paper has drawn on many of the views of people who are responsible for technology platform innovations. Far fewer argue that such innovation generally appears to have been undertaken in a consumer vacuum without much investigation of usability preferences and social choices that affect end users. Take, for instance, consideration of the possible acceptability levels by consumers and the widely assumed inevitable popularity of common screen convergence with the integration of television viewing with Internet searching. Duane Varan, executive director of Murdoch University's audience research laboratory has doubts about end user responses:

Consumers don't want to replicate a PC screen on the device they use for leanback' leisure time. There are promises and there are pitfalls to Smart TV. The user interface has been hopeless (to date) and the idea that you can use your remote control to navigate a web site and type in a URL doesn't work very well. (Interview May 4 2011)

FACEBOOK: SOCIAL MEDIA IS UBIQUITOUS

And what of the latest newcomer here- Facebook? On March 8, 2011 Warner Brothers starting renting their movie, *The Dark Knight*, via Facebook (again only in the USA) as the first mode of release. A regular magazine contributor outlined his experience:

To find the flick, I signed into Facebook, opened *The Dark Knight* movie page, and clicked a link to "Watch The Dark Knight From Warner Brothers." After consenting to the app's prowling of my profile information, I arrived at a considerably more professional-looking movie page. *The Dark Knight* will set you back 30 credits – Zuckerberg for \$3 – which is in line with iTunes (\$2.99 for the rental)... Purchasing the flick requires that you enter a zip code (presumably for copyright purposes) and to click a "Pay with Facebook" button, the social network's integrated payment system ..(but) Facebook doesn't support alternative payment methods. Upon consenting to the 30 Zuckers, *The Dark Knight* began to play. Honestly, the quality is good, comparable to the other services. The sound is a bit low, but that can be remedied with a good set of headphones ([Fenton 2011](#)).

Given that Facebook has more than half a billion members internationally, it has the potential to disrupt the other emerging video streaming markets. Might Facebook become the most transformational model of all? Will the big studios progressively shift to Facebook as their primary mode of distribution for first release movies? Or, more speculatively, the longer term wild card may be that wider consumer access to high capacity broadband to American homes, and other homes internationally, could tip the film studios into a fundamental re-think of a distribution model – not based on physical cinema house but towards a prime market of home based on line streaming content.

Clearly though, so many people enjoy the cinema experience itself – the lights go down, the curtain rises, and different modes of human creativity appear on screen for all present to experience. So it may be that the much-discussed complex issues related to content rights are not just the major hurdle to institutional change. Rather, we come back to the vexed social issues that affect the take-up by end users and how generally so little investigative research is undertaken to shed light on these behavioural matters. While it is possible for Facebook to offer so many more first release movies from the big studios, as well as access to movies from Netflix (and also those offered by Amazon and Hulu), this might not be what the Facebook participants actually want. Might they continue to prefer the user-generated content that most likely brought them to the site in the first place, and that the ‘unprofessional’ mobile uploads of the best friend’s party, or a special cooking sharing project, or video of the new grandchild’s birth in hospital be their prime content appeal?

HOW TRANSFORMATIONAL?

The greater availability of higher capacity broadband has made possible new services related to the different delivery modes for end users that broadband can support, such as attractive on-line-streaming of video and television programming because of increased network capacity. Changes outlined in this paper should not be seen as evidence that the USA is leading the world in new higher capacity broadband services, because the availability of good broadband is actually very patchy in the USA. Currently in the USA, television is in an early stage of facing changes to the so well entrenched conventional over the air broadcasting model with considerable on-line experimentation coming from several newcomers to this field. And making predictions is fraught with difficulty because the management of established commercial network television in the USA faces complex dilemmas as to what extent they might embrace the opportunity to offer more of their programming to new outlets, but also ensure no risk to their programming rights and to their lucrative advertising base.

And for Australia? Video stores might eventually be under some pressure to survive. Scott Lorson, CEO of Fetch TV, a company that seems set to make its mark with NBN, has suggested that until recently Australians rented more video than people in any other country in the world. But he now points to considerable anecdotal evidence of video store closures in Australia, and has suggested that on-line TV ‘offers the prospect of a user downloading the entire DVDs of a video store’ ([Dalglish 2011](#)). Similarly Turner had suggested earlier that:

The days of tramping to the video store to find the night's entertainment are past. Now the question is only how long will it be until walking to the mailbox to get a DVD is considered antiquarian. ([Turner \(2008\)](#))

And in the long term too the existing hierarchy of release for film and movies may not be maintained: currently generally first theatrical, then hotels, DVD retail, subscription television within 45 days, then release on commercial over the air television. As well, the prospective new IPTV players, such as Telstra with its T-Box, Foxtel, and Fetch TV, are searching for their place in a changing media landscape.

Australia’s NBN brings with it greater network capacity as a potential catalyst for substantial institutional change to the Australian television industry in the long term. The development of Internet television, and IPTV, and how they come to compete or co-exist, will be worth watching.

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