How Will the National Broadband Network Alter the Communications Landscape of the Future?

Niranjan Arasaratnam, Andrew Ailwood and Nathan Stacey review some of the potential effects of the National Broadband Network on broadcasting.

Introduction

There has been a lot of debate surrounding the Rudd Government's proposed roll-out of a $43 billion National Broadband Network (**NBN**). However one views the planned network, once built it will indisputably establish 'a whole new medium in every household.'[1] Internet speeds will be increased by around 100 fold, facilitating extremely bandwidth-heavy activities online, something which has not been commercially available before. How the medium will be exploited, however, remains to be seen. The way in which it alters the communications framework, businesses and the living room experience of Australians is likely to be gradual, rather than radical.[2] Nevertheless, change is certain and likely to be profound. Of great interest is how the NBN will alter television broadcasting, which has provided Australia with the dominant source of news and media for half a century. Even before the introduction of the NBN, free-to-air (**FTA**) television was losing its grip as the dominant medium due to fragmenting audiences and diminishing revenue. The realisation of the potential offered by very high bandwidth internet is, over time, likely to witness a dramatically different media experience: one moving away from linear, transient broadcasts to 'on demand', downloadable online content. This article also explores how that movement will affect the nature and regulation of online content.

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Framework of the NBN

In March 2007, the Labor Party, while in Federal Opposition, announced bold plans to build a very high speed broadband network, which became a key promise of its election platform.[3] Labor justified the proposed infrastructure in economic terms, arguing that Australia required improved broadband facilities to assist productivity and international competitiveness.[4] Since attaining power, the Rudd Government has cleverly turned the tables on Telstra, after Telstra tried to stymie the tender process for the NBN rollout.[5]

In addition to raising the spectre of substantially reducing Telstra's market power, the Government has revised the specifications of the NBN. Initially, the project was billed as a fibre-to-the-node (**FTTN**) network reaching 98% of the population (at a minimum speed of 12 mpbs). The current specifications are for a fibre-to-the-premises (**FTTP**) network providing download speeds of 100 mbps, to be made available to 90% of the population.[6] The total cost of the project has been revised upward by about ten fold as a result of the greater reach (and expense) of FTTP over FTTN broadband.[7]

This bandwidth will offer unprecedented download/upload capabilities, especially for household internet use. At 25 Mbps, a member of your household could make a high-definition video-conference call, while simultaneously someone else streams an IPTV[8] program and a third person plays video games on the web.[9] Having to choose between running different applications or functions at the same time, in much the same way as users once chose between using the phone or the internet with dial-up, will become something of the past. This capacity presents a raft of possibilities – and challenges – for the media and the regulatory landscape in which it operates.

1. What Will Happen to TV?

Watching news and entertainment online, on request, at a time convenient to the consumer is already a possibility. As these services increase in number and, more importantly, quality, habits will begin to change and the NBN is likely to act as a catalyst for this process. People are continually going online in the first instance for their news and entertainment,[10] as traditional media struggles to deliver content with comparable speed. This is contributing to the ever-shrinking revenue of FTA networks,[11] as companies start advertising elsewhere and television airtime becomes less valuable.[12] Newspapers are also suffering revenue losses to online advertising, prompting a veteran UK columnist to describe the format as 'a dead duck'.[13]

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> Broader availability of IPTV will do for television what [Voice over Internet Protocol (VOIP)] did for voice calls: remove the service premium and deliver a content service driven solely by competitive forces. Disintermediation will be the death of FTA [television], held off only by the speed of the NBN roll-out and the strength of incumbent broadcasters' long-established relationships with content providers.[14]

It is likely to take a while for the dynamics to change, but as the internet becomes a more profitable forum for advertising, online content providers will wrest power from the broadcasters. Online rights to content will surpass broadcasting rights. Indeed, why would sophisticated owners of content sell their rights at all?[15] A recent article in Crikey gave the hypothetical example of the AFL outsourcing the filming and the production of games to be streamed directly to consumers through its website, where it could run its own advertising or subscriptions and vertically integrate its distribution model.[16] Finally, as television and computer hardware appear to continually converge, this will further migrate audiences to broadband-delivered content.[17]

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So is the transition to digital television a misguided policy and should we start planning to bypass television entirely, if these gloomy predictions are to be believed? The current trends do not favour the traditional entertainment medium in the long term, but it is unlikely that television will die on the construction of the NBN. However, commercial broadcasters will be required to reinvent themselves – possibly by playing to their strengths for live news and events coverage,[18] possibly in new, inventive ways. Another policy consideration is that the continued broadcasting of television might eventually come to be seen as an inefficient use of spectrum, which detracts from improving the quality of mobile and wireless services.[19] Television is set to undergo major changes as it loses its mantle as the pre-eminent medium for news and entertainment in 21st century households.

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How Will Online Content and Habits Change?

The speed and capacity of the NBN will create a greatly improved multimedia experience – both for consumers and creators of content.

User-generated content (**UGC**) is online content produced by traditional end users or consumers. It can encompass anything from inane status updates on Facebook through to perceptive commentary appearing on a blog. With the NBN, users will be able to upload more and richer content.[20] This could see an improvement in the quality of UGC from largely amateur material to more professional grade content. As a result UGC, and sites on which it appears such as YouTube, will become more attractive for advertisers.[21] Furthermore, information exchanged through UGC websites can be used to tailor advertisements to the audience, potentially making this advertising 'space' more valuable than television timeslots, where specific demographics are less easily targeted.[22] Singapore has a growing appetite for UGC and is also in the process of implementing an NBN; this provides another case study to observe whether and to what extent increased bandwidth improves the quality of UGC.[23]

Finally, it is interesting to look at some of the speculation on how the NBN will change people's lifestyles and social habits. Mark Pesce argues that 'lifestreaming' (whereby a person documents their everyday goings-on through the internet) will become normal among the younger generation of internet users.[24] Andrew Ramadge and David Higgins retort that technological change does not necessarily bring about changes in social behaviour.[25] They cite how internet relay chat (an early, online form of short text messages) was all the rage in the late 80s and how, two decades on, Twitter is the new force as a 'microblogging' social networking

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website, despite relying on basically the same premise of public conversation as the 20 year old technology it replaces. Certainly the consumption of rich content on mobile devices will increase. Content delivered to Wi-Fi hotspots by the NBN will provide for smoother YouTube clips on your iPhone or Blackberry – the reliance on mobiles as items of portable entertainment is therefore likely to grow.

The ability for people to 'lifestream' is, of course, not the same as them actually doing it. Such activities are not likely to occur without an accompanying change in social values and behaviour.[26] Studies support the premise that a desire for privacy is still important for many users in determining the extent of their online social networking.[27] Accordingly, while changes in technology can be a source of dramatic social change (with the NBN being no exception), the change will almost certainly be gradual.

Issues around Regulation of Online Content

The explosion in the availability of online entertainment content poses significant challenges for regulators. Currently, online services which make programs available on demand on a point-to-point basis are expressly carved out of the definition of 'broadcasting services'.[28] Further to this, a Ministerial Determination made in 2000 took internet streaming outside the ambit of the Broadcasting Services Act 1992 (Cth) (**BSA**). Many of the strict conditions placed on broadcasters in the provision of their services, therefore, simply do not apply to providers of online content, despite its ever increasing abundance as a source of audio visual entertainment.[29]

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Take for example the condition on Australian commercial broadcasters to show minimum amounts of Australian content.[30] The rationale for the condition is, essentially, to exploit broadcasting as a means of developing and reflecting Australian culture and identity.[31] It is feared that without this sort of protectionism Australian television could become completely dominated by foreign programs. Buying Friends re-runs is cheaper than producing quality Australian drama and often the audience numbers will not be sufficiently greater to make the latter investment cost-effective.[32] However, these content obligations do not apply in the online world and therefore more and more people are accessing content which is not as strictly regulated as television programming. Perhaps the Government could implement similar content obligations in respect of online content, but it seems almost futile given the plethora of material available over the internet, compared to the more limited offerings of broadcasting, restricted as it is by the scarce nature of spectrum.

In light of this, how will the online world be regulated? The task is much harder than in the broadcasting regime where a limited number of licensed operators can be closely monitored. Regulating the appropriateness of content is probably the most visible and difficult challenge for authorities. The Government continues to commit itself to a Cyber-Safety Plan to protect young audiences.[33] Early indications are that ISP filtering of illegal content is easily bypassed.

The Government has declared that it 'intends to consider' in 2011 whether the current regulatory framework is inappropriate for converging technologies and content supplied through them.[34] The response, it seems, is set to be reactive, not proactive. No doubt the NBN will only intensify the challenges faced in trying to regulate online content, as more and better content becomes available. The Government does not appear to favour the technologicaly neutral approach favoured by the European Union. Any opportunity for review of the regulatory system should extend to how copyright law is interacting with access to online content. A system of licensing content based on geography may have been fine for the golden era of terrestrial television, but in today's world, where anyone can access online content from anywhere, it does not make sense. The frustrations of Australian internet users, geo-blocked from such sites as Hulu, will continue the pressure on government to review the outdated and inefficient regime currently in place.

Conclusion

The NBN presents a vast technological improvement on existing communications infrastructure. Changes to the communications framework, to platforms and programs, and to consumption and viewing habits are inevitable. However, our lives will not change 'without accompanying changes in cultural mores, government regulations and commercial practices.'[35] The Government ostensibly supports the concept that laws should try to keep pace with technology; despite adopting a 'wait and see' approach regarding the regulatory challenges imposed by converging platforms.[36] It is important that regulatory developments do not occur on an ad hoc basis. This approach will only lead to a 'patch work' communications regulatory structure. A technologicaly neutral approach should be the guiding principle as we move to a new communications and entertainment paradigm.

The changes may be slow to arrive, but this does not mean they will be insignificant – in fact, in the long term, the NBN is likely to generate a marked shift in the way we communicate and in our habits of consuming audio-visual content. Probably the most appreciable change will be the change to television; as people continue to migrate to the internet as a primary source of news and entertainment, the pressures on FTA broadcasting will continue, requiring significant restructuring of that industry. This then leaves open the daunting task of how, or even whether, the internet can be effectively regulated.

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(Endnotes)

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25 Andrew Ramadge and David Higgins, 'A Media Centre in the Home' Weekend Australian, 18 April 2009, 21.

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27 Ibid.

28 Broadcasting Services Act 1992 (Cth) s 6(1)(b). Point-to-point services are those where a consumer receives a program having made a request from a service provider (for example, any time you access a YouTube video). This is to be contrasted with point-to-multipoint services, which are the essence of broadcasting. A single transmitter sends radiowaves carrying data to any and all persons with the technology to receive and play those signals as moving images and sounds on a TV.

29 Broadcasting Services Act 1992 (Cth) s6(1)(b) schedules 5, 7 apply to online services and content, including, among other things, classification of content for appropriateness for different audiences.

30 Broadcasting Services Act 1992 (Cth) s6(1)(b) s 42, sch 2 cl 7(1)(b). Broadcasting Services (Australian Content) Standard 2005 (Cth).

31 Broadcasting Services (Australian Content) Standard 2005 (Cth) s 4. The standard is available at the homepage of the Australian Communications and Media Authority <http://www.acma.gov.au/WEB/STANDARD/pc=PC_91809>.

32 Scott, above n 2.

33 Conroy, above n 3.

34 Australian Government, 'National Broadband Network: Regulatory Reform for 21st Century Broadband' (Discussion Paper 2009) 49.

35 Ramadge and Higgins, above n 25.

36 Australian Government, above n 34, 48–9.