

**Submission to the the House of Representatives Committee on Infrastructure and Communications inquiry into the role and potential of the National Broadband Network (NBN).**

This submission is prepared by two researchers who are associated with the ARC Centre of Excellence for Creative Industries and Innovation (CCi) based at Swinburne University of Technology in Melbourne. This Centre, created in 2005, has undertaken a wide range of research projects to improve the understanding and recognition of the creative industries and the 'creative economy' since its inception in 2005. Australia is well known for its cultural inventiveness and creative talent, and for being a fast follower or early adopter of new technologies, and the National Broadband Network offers rich potential to further build on these strengths. Details of the overall work program of CCi may be found at : <http://www.cci.edu.au/>

A summary of some of the related NBN work, that already undertaken and that ongoing, by these two CCi researchers is summarized here, with links to further information.

This offering to the committee is keyed into three of the points cited in the Terms of Reference of the inquiry:

e) The NBN will contribute to *regional economic growth and employment opportunities* if due regard and support is given to the cultural and creative arts industries sectors, and to the information and professional services sectors in the Australian economy.

The critical factor is the ability of the NBN to increase Australia's GDP without increasing the impost on limited physical resources. That is, sustainable services production and consumption can take over from non-sustainable increases in physical resource consumption with all of its consequent environmental impacts. These creative and professional services sectors also have high export potential with the NBN providing the transport.

f) How NBN may impact on business efficiencies and revenues, particularly for small and medium revenues, and Australia's export markets.

Generally speaking, Australian broadband policy makers do not appear to have examined significant international research and key broadband industry developments such as demand factors, consumer behavior and practices, and adoption factors concerning the end -users and consumers of higher capacity broadband.

The overarching questions are about the nature of broadband and respective service domains, what related overseas experiences might provide useful insights for Australia, and what are the implications for communications public policy ?

For a summary of several key innovations and policy insights see:  
Barr, Trevor *Tipping Points for Broadband Users* at:

[http://www.networkinsight.org/publications/record\\_of\\_the\\_2008\\_cprf.html/group/16](http://www.networkinsight.org/publications/record_of_the_2008_cprf.html/group/16)

NBN has a stated aim of fostering competition in telecommunications markets and encouraging new entrants. The NBN service providers' professional association, Communications Alliance, has suggested that there may be as many as 50,000 -100,000 new service providers when NBN is fully operational. The notion of disruption to existing organizations, and the prospects for new business entrants ( including small and medium enterprises) may be most crucial in video, commercial, and subscription television markets, and this is canvassed in a paper:

Barr, Trevor, *Expect the Unexpected: NBN Innovation at:*

[http://www.networkinsight.org/verve/resources/CPRF\\_2010\\_papers.pdf](http://www.networkinsight.org/verve/resources/CPRF_2010_papers.pdf)

The paper summarises six possible future NBN related developments:

- New offerings by Internet Service Providers (ISPs) facilitated by NBN Co.
- New offerings by individual new Service Providers (SPs) facilitated by NBN Co.
- Small operator live-streaming businesses
- Monetisation of user-generated content
- Responses from incumbents, Telstra and Foxtel.
- Global market challenges via *Google*

h) The NBN will *facilitate community and social benefits* through enabling more highly immersive forms of communication that lead to higher levels of engagement and sense of connectedness.

For example, people with disability can make good use of new video and multi-media communications services to overcome isolation and barriers to community formation and economic participation. In short, the greater the bandwidth, the greater the immersion, the greater the engagement, the greater the sense of connectedness, the greater the wellbeing. However, an "entry level" service will not be sufficient to realise these benefits, yet many people may be limited to this due to affordability constraints.

The NBN, therefore, will not be an enabling technology for many without due attention to extending the new network to people on a low income and other generally excluded groups such as people with disability. Complementary programs focussed on digital literacy and citizenship need to be implemented to add to the capacity of the NBN to contribute to these ends. To be a successful universal network, the NBN must have people connecting universally. The diversity of the Australian population is a great strength, which means participation in the NBN will also require diverse strategies and programs.

To this end, the Committee should recommend that some small but worthwhile proportion of the large Government investment towards the NBN

be allocated to services development and marginal cost provision to potentially excluded people who could be the forerunners of worthwhile usage of high capacity broadband.

We are keen to further assist the members of the inquiry as they may wish.

Yours sincerely,

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