The Seven Myths of the NBN

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Will a fibre-to-home network help circulate accurate information about infrastructure projects? Ian McAuley on the political economy of nation building and the myths about the NBN that won't go away.

The debate on the National Broadband Network has developed considerably since I wrote about it shortly after the 2010 federal election As the NBN clears its early legislative hurdles its opponents have mobilised to try to kill it before it develops an unstoppable momentum.

The struggle over the NBN is reminiscent of the development of the Snowy Mountains Scheme 60 years ago. At a cost of £400 million it represented about 4 per cent of GDP at the time — about the same as the NBN. It was developed by the Chifley Labor government and was vigorously opposed by the Menzies opposition. The government managed to establish the Snowy Mountains Authority only five months before the Menzies government was elected in late 1949, and in that period the government and the Authority went to extraordinary lengths to ensure that the project was irreversible.

The NBN struggle is no less intense. There is a stratum within our national culture which is deeply suspicious of nation-building — a national inferiority complex — and it is easily exploited by those who, for commercial or political reasons, can profit from blocking such projects.

Even when infrastructure projects are clearly in the public interest, opposition is easily mobilised, because while their benefits are generally widespread and diffused throughout the community, those who lose out are easily identified and easy to mobilise. The benefits take time to materialise, while the costs are generally borne over a much shorter time. That's the political economy of nation-building.

That political economy was on display last week when the ABC's Four Corners did a story about the NBN. True to form, the ABC ran a "balanced" program, giving roughly equal airtime to the NBN's supporters and detractors. As is so often the case with the public broadcaster, it was as if commercial and political self-interest has the same claim to legitimacy as detached economic argument — a postmodernist infection which allows "balance" to displace reason and evidence.

That approach, while flawed, did expose the myths around the NBN, and it's useful to articulate them in a more structured manner than can be done in a television program. I counted seven myths.

The first myth is that the private sector can do it. We heard, from a representative of the telecommunications firm AAPT, a repeated cliché that "the market is the cornerstone of change", backing a claim that it should all be left to the forces of competition. Market competition is good, therefore the government should butt out. QED.

It's an argument with the same validity as the old Soviet case for universal public ownership, which similarly overlooks the different economic roles of the private and public sectors, and which ignores the distinction between situations where competition works and where it fails.

No doubt the private sector, left to its own resources, has the capacity and financial incentive to link up some densely settled regions with broadband — particularly the urban CBDs. But that is not the NBN's model. It is about a universal service, with essentially uniform pricing. The NBN's model, appropriately, is more like the model we use for postal services. We have a uniform 60 cent postage for all letter services, be they from Macquarie Street to Collins Street, or from Thargomindah to Meekatharra.

Indeed, the NBN, particularly as it has been shaped by the negotiations of Tony Windsor and Rob Oakeshott, is about regional development, reversing some of the lopsided development of the last century which has seen two thirds of our population crowded into five big and congested cities. Australia has a strange settlement pattern, with only around 20 per cent of the population in cities in the 30,000 to 500,000 band, which are the city sizes where large proportions of the population live in other developed countries.

That same representative of AAPT went on, candidly, to reveal his real gripe, which is that under the NBN model his and similar firms "cannot cherry pick" high profit markets, leaving other regions under-serviced. Other commentators on the program confirmed that the pure market model would probably see only about a quarter of the population served with broadband, and that these would be clustered around the urban centres. Even Edward Willett, a Commissioner with the Australian Competition and Consumer Commission (a

body which promotes competition with missionary zeal) said that if broadband provision were to be provided outside the CBD areas it could be done only as a natural monopoly.

In overcoming much of the tyranny of distance the NBN picks up where previous regional policies have failed, for most previous governments have focussed on growth centres themselves without paying attention to connecting them to one another and to capital cities. (It is only now, 40 years after Whitlam's grand growth centre initiatives, that Albury-Wodonga is getting a proper road connection to Sydney, and Bathurst-Orange is still isolated without a proper highway. And that's not to mention deficiencies in rail connections.)

The second myth is that the project should have been subject to a cost-benefit analysis, one of the constant calls from the Coalition.

Cost-benefit analysis has its place; indeed there are many programs and projects that should have been subject to it. For example, a proper cost-benefit analysis would have ensured that subsidies for private health insurance would never have seen the light of day.

Cost-benefit analysis comes into its own for projects with reasonably well-known costs and benefits. It's a useful tool for evaluating proposals such as extensions to a road network or the siting of a new hospital, where the consequences of building new infrastructure can be predicted with confidence.

For the NBN, the costs are not difficult to estimate. It's largely a "pipes and wires" operation, in itself quite standard technology; it's no Opera House or Joint Strike Fighter. But its benefits are unknown; a cost-benefit analysis would be no more than an expensive delaying tactic (presumably in order to give a government of different complexion time to kill it). Such exercises are purely speculative, and, depending on the assumptions, can yield any result the government wants.

When planners built our road, rail, telephone and electricity networks, who could have predicted their uses? When electrification was established, for example, it was about providing lighting: microwave ovens, dishwashing machines, home computers and other everyday appliances were unknown at the time. The internet is similar. Already there are broadband applications we could not have imagined just a few years ago. (Imagine taking yourself back to 1980 and explaining to someone the internet and applications such as Google Street View.) Unless creativity and innovation are to stop dead, there are many more commercial and domestic applications on their way.

The third myth is that no one really wants it — and that it's more than anyone possibly needs. The Four Corners team must have combed the country to find the place with least awareness of the benefits of broadband, a small town in the northwestern corner of Tasmania. Take up of the internet has been slower in Tasmania then in other states, and it has been slower in the country than in cities. Nationally, however, the percentage of households connected to the internet rose from 16 per cent to 72 per cent over the 10 years to 2009, and is undoubtedly higher now. Over the five years to 2009 the percentage of households with broadband connections rose from 16 per cent to 62 per cent. It is a brave assumption that people will remain satisfied by connections at present broadband speeds.

We shouldn't expect rapid initial take up of the NBN. People don't join networks until they are substantially complete, and then there is a rush. We can imagine a time past when telephones were a novelty; there was no point in anyone having a telephone until others were connected. Once a critical mass is reached, however, take up is usually very fast, approaching saturation.

That delay in obtaining a critical mass is one reason why large networks need to be established as protected monopolies. The cash flow involved in getting to that critical mass stage can be crippling; any firm that attempts such an investment would be setting itself up for bankruptcy, or, more likely, a hostile takeover by an opportunistic predator just at the stage before cash flow starts to turn around.

There is a counter-myth, along the lines that optic fibre locks us in to an established technology; there may be something better around the corner. If there is, then it must be a well-kept secret. Anyway, if detractors of the NBN claim that optic fibre is more than we need, then why suggest there may be something better?

The fourth myth is that "the Internet is becoming a wireless internet", to quote Malcolm Turnbull, who appeared on the program with his nifty little wireless tablet computer.

The claim is disingenuous, and Turnbull, of all people, knows the limits of wireless technology. Bandwidth is limited, and what works today for a few users will become the Internet equivalent of road gridlock in just a few years. Even now the wireless spectrum is getting crowded, and the up-and-coming 4G network will provide no more than a stopgap improvement.

The future will almost certainly see more wireless devices, but these will be on short tethers generally within homes and other buildings; the domestic wireless LAN with a range of 10 or 20 metres is the model and these need the support of widely distributed fibre.

The fifth myth is that because other countries haven't done it, we shouldn't either. The Four Corners program gave prominence to a representative from a UK firm, Communication Chambers. His argument basically was that because the UK was satisfied with something less than the NBN, then Australia should be similarly satisfied.

It's the standard appeal to colonial cringe. In case some Australians haven't noticed, the UK is a very different country. One difference, which should be obvious even to those who are blind to its significant social differences, is its geography. The NBN is a solution for a geographically large country.

If we want international comparisons we should look to our own region, among the prosperous and emerging Asian countries, where there are plenty of models of technological innovation. We don't have to use Europe as a point of reference.

The sixth myth is that the project is necessarily uneconomic, for if it were economic the private sector would provide it.

This is a misunderstanding of the difference between economic viability and financial viability, because it neglects the value of what economists call the "externalities" of the NBN. It will have benefits beyond those which accrue immediately to its users and which cannot be picked up in market transactions. Some are already predictable — education (which has social as well as individual benefits), public health, an easing of urban pressures and travel demands to name a few.

There is nothing novel about projects being justified on the basis of externalities. Even Adam Smith, who is so often invoked in defence of unregulated markets, said:

> "The third and last duty of the sovereign or commonwealth is that of erecting those public institutions and those public works, which, though they may be in the highest degree advantageous to a great society, are, however, of such a nature that the profit could never repay the expense to any individual or small number of individuals."

The final myth is that the NBN represents some atavistic reversion to a Soviet model of central planning. On the program the project's opponents sustained a barrage of emotive language, as if the Australian Government is hell bent on nationalisation of industry, thereby applying the dead hand of government to suppress the vibrant creativity of the private sector.

The NBN will indeed be owned initially by the government, but in case it has missed some people's attention, so too is almost all the road network. Like our roads, the NBN provides a platform for entrepreneurship and creativity, most of which will be private sector activity.

As pointed out above, the physical network in which the Government is investing is a "pipes and wires" project. Even if governments are not particularly entrepreneurial or creative (a disputable point), there is no imaginable way a private investor would do anything more innovative.

Commercial opposition to the NBN is understandable, if not defensible. What is harder to understand is the stance of the Opposition. Perhaps the Snowy Mountains Scheme has a message about the realpolitik of national development, for at the Tumut 1 Dam is a plaque commemorating Menzies' opening of the project in 1959. He went on to take advantage of every opportunity to associate himself with the project. It's not hard to imagine a time in the future when Prime Minister Turnbull is projected across the nation, in 3D holography, celebrating another milestone for the NBN.