Submission to the Productivity Commission: Telecommunications Universal Service Obligation Inquiry

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The following short submission is based on research conducted by the Swinburne Institute for Social Research and industry partners. A version of this submission was submitted to the *2015 Regional Telecommunications Review Committee*. Economist Jason Potts from RMIT provided advice and assistance on the submission to RTIRC.

Between 2010-2014, the Swinburne Institute for Social Research undertook a 4-year ARC-funded research project (LP110200440, led by Rennie[1]), together with industry partners the Centre for Appropriate Technology, the Central Land Council and the Australian Communications Consumer Action Network, which set out to identify the causes of the digital divide in remote Aboriginal communities. The full results of that project can be found in the book publication, *Internet on the Outstation: The Digital Divide and Remote Aboriginal Communities* (full-text available at: http://networkcultures.org/blog/publication/no-19-internet-on-the-outstation-the-digital-divide-and-remote-aboriginal-communities/).

Our research suggests that the current Universal Service Obligation (USO) is failing to meet the communications needs of Indigenous Australians living in remote communities. The consumer preferences of this group differ significantly from other groups, leading to a situation of digital exclusion, particularly in areas without mobile reception. As we argued in our submission to RTIRC, the current USO comes at the cost of economic and technological efficiency, largely because it ignores the preferences and trade-offs that remote communities have over communications services. It also forecloses on alternative and likely more efficient mechanisms of achieving remote communications services.

The main findings of our work that are relevant to this review are as follows:

Technological change and the need for flexibility in the USO

The current USO model specifies a technology and type of service that was appropriate in the 1970s (the 'standard telephone service' (STS)) but bears little

[1] Swinburne Institute for Social Research: Ellie Rennie, Julian Thomas, Eleanor Hogan; Centre for Appropriate Technology: Andrew Crouch, Robin Gregory; Central Land Council: Alyson Wright; Australian Communications Consumer Action Network. Funded by the Australian Research Council Linkage Project Grant. Baseline study supported by a grant from the Australian Communications Consumer Action Network (2010). Additional support provided by the ARC Centre of Excellence for Creative Industries and Innovation.

resemblance to today's telecommunications landscape[2]. The STS is defined as using copper wire except in remote areas where there is no copper wire, in which instance Telstra may use High Capacity Radio Concentrator (HCRC), satellite or wireless technology. Consumers in remote Australia are generally not able to access the STS as the cost of cables and trenches is still borne by the consumer (and is prohibitive).

The *Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2009* allowed that mobile and VoIP services would, under certain circumstances, be considered as an STS for the purpose of the USO[3]. To date this provision has not resulted in any significant improvement in services for residents of remote communities due to the cost of mobile infrastructure as provided by Australian telcos. A full investigation of low-cost mobile infrastructure is warranted, with consideration to the compromises in quality associated with 'micro-cell' technologies.

Telstra currently provides payphones in some remote communities as a basic level of service under the USO. In our experience, these phones can be frequently out-of-order. Moreover, as discussed below, phones for smaller communities (under 50 people) have been funded separate to the USO.

Essentially, the USO is out of date. Residents of remote communities would be better served by internet services than by the current STS obligation (further research is needed on whether pay phones remain an essential service where internet services are available). However, the key point we wish to make is that the way in which internet services are provided will greatly impact on adoption. The NBN LSS does not, on its own, resolve digital exclusion in remote communities. Mobile services or community WiFi are likely to result in far higher levels of internet adoption in remote communities than satellite subscriptions. Finding a flexible alternative to the USO is important.

Internet adoption is uneven

The NBN was designed to provide internet access to all Australians. However, the NBN is not directly meeting the needs of remote Indigenous households. Satellite internet is not the preferred means of accessing the internet in remote communities, due to:

- The complexity of setting up a service, particularly from locations where payphones are the only telephony available
- Billing – overwhelmingly, Aboriginal people living in remote areas prefer pre-paid services and these are not an option for satellite.
- Fixed infrastructure requirements – inter and intra community population mobility means that fixed domestic satellite equipment is not desirable for some individuals and families

The strikingly uneven patterns of internet adoption between remote communities correspond to the availability of mobile broadband and other

[2] Goggin G. (2010) Realising Universal Communications, Working Paper for the inaugural Australian Communications Consumer Action Network (ACCAN) conference, Melbourne, 28-29 June.

[3] Telstra currently provides some remote customers with satellite services.

government programs. Public-private partnerships in some regions have resulted in mobile coverage to larger remote communities (we do not know if USO contributions enabled these partnerships indirectly on the Telstra side – that would be a worthwhile question for the Commission to put to Telstra).

As we wrote in our submission to RTIRC:

> The USO is essentially a procurement exercise – a means to select vendors to provide a service and to determine how much they should be paid. The *Indigenous Communications Program* was also procurement exercise, intended to fill gaps that the USO could not meet, including payphones in communities with a population under 50. Subsidies also exist for satellite broadband (the former *Australian Broadband Guarantee* and the *NBN […] Satellite Subsidy Scheme*) and the *VAST* satellite television service. Various government programs, including *Networking the Nation* and *RIPIA* were designed to address the infrastructure void in remote Australia, with varying degrees of success. The result of these programs is an uneven patchwork of infrastructure and programs across remote Australia, resulting pockets of digital exclusion and inclusion.
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> One positive consequence of these various experiments is that there is a great deal of knowledge amongst Indigenous organisations as to how to better meet the needs of remote-living Indigenous Australians, yet the USO provides no assistance for these organisations to do so in a sustainable manner.

The NBN LSS will provide most value for communities if it is used to support community WiFi. NT Libraries is currently undertaking to provide community WiFi in additional sites using the LSS. Although the sustainability of community WiFi requires further research, such services should be considered within the scope of this Inquiry as they may provide viable alternatives to the STS.

How to bring greater flexibility to communications infrastructure and service provision?

In our RTIRC submission we outlined one possible solution - subsidy auctions:

> […] the contracted USO provider would pay a fee not to provide a service (to be released from the USO), and that fee would be transferred to the nominal recipient of the USO service, who would then use that cash to contract the service that they actually want. Both sides gain from this transaction, and would not take place unless that were the case.
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> Specifically, the company supplying the service could offer to effectively buy out the recipients of a USO (with a side payment of <C) where the marginal benefit they receive (B) is less than the marginal cost of supply (C) such that C-B = A, where A is then the surplus gain to the remote recipients.

Such a model might be feasible (with some adjustments) under the current USO contract between the Commonwealth and Telstra.

A great deal has changed in the telecommunications landscape since Australia's last attempt to introduce competition into the USO at the regional level (two contestable USO pilot projects were undertaken in 2001. As no competitors

emerged, in 2005 the Department of Communications IT and the Arts declared that there was no competition in the provision of the USO). If the USO were changed to include internet services and 'micro telcos' (low-cost mobile) it may be possible to provide communication services that better meet the needs of consumers. Greater flexibility in the USO would also support local enterprise and innovation.