SENATE SELECT COMMITTEE ON THE NATIONAL BROADBAND NETWORK
Responses to Questions on Notice – IRCA (Linda Chellew)
Inquiry into the National Broadband Network

Brisbane, 21 November 2008

IRCA

QoN No.	Hansard Page Reference	Senator	Question
1	2-3	Sterle	**Senator STERLE**—I would like to go back to what you were talking about with the reduction in petrol sniffing because of access to communications. Do you have any figures for the communities and states? **Ms Chellew**—At Docker River, for example, there was a very large petrol sniffing problem at the time and when the Deadly Mob youth media team went in there most of those young people were engaged in making films and using computers. They participated until 9 pm at night. They could not get rid of them because they were so connected to the activities that they were doing. **Senator STERLE**—That stretched in the western desert area up there with the Ngaanyatjarra people. **Ms Chellew**—Yes. **Senator STERLE**—I was up there not long ago. They have their brand-new satellite and all their computers. It would be very helpful if you have got access to those figures if you could table them for the committee. **Ms Chellew**—Yes. The other experience which is not so much remote is in Alice Springs itself with the internet cafe at Gap Youth Centre that we set up there with 16 computers on broadband. We had young people just running off the buses to the door and five local schools booking us eagerly to enable their young people to have access to computers on high speed, because at the time they had little access, all kinds of blockages, slow connectivity and so on. We had high connectivity and the young people from late primary to secondary were extremely engaged in producing remarkable work very quickly. **Senator STERLE**—That is fantastic. Once again, with the re-engagement with the schools because of the advent of communications, if you have any figures around that it would be helpful if the committee could be supplied with that. **Ms Chellew**—I will get them for you.

| | | L. Chellew | **RESPONSE to QoN 1**

In relation to providing figures that support my assertion – I have been unsuccessful in finding something directly related other than my own anecdotal evidence.
The following reports however, do provide consistent evidence of the success of ICT projects with Indigenous people.

http://www.flexiblelearning.net.au/flx/go/home/news/flex_latest/cache/bypass?sector=flexlatest&id=3131

Excerpt:

The '*Working Towards Better Practice* forum', hosted by the national training system's e-learning strategy, the Australian Flexible Learning Framework (Framework), demonstrated how information and communication technology (ICT) was becoming an integral way in which Indigenous communities accessed training and employment opportunities.

The forum heard from six projects across Australia that have been funded and supported through the Framework's Indigenous Engagement Project.

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2	4-5	Fisher	**CHAIR**—You referred to the spatial ability of Indigenous children. Are you suggesting that there is a difference in terms of the learning ability or the capacity of Indigenous children versus others that might mean that there is a particular advantage in providing Aboriginal children with that? **Ms Chellew**—That is right, yes. I am not an expert on that. I am just observing. **CHAIR**—Are you able to point us to where that sort of evidence might be provided? Those people who have written your submission have identified it, but do not provide us with an answer. In item 4.6 your submission talks about selection criteria and it talks properly about the criteria for selecting the national broadband network in the broad. It states: *… population may not always be the most appropriate criteria, nor the presence of existing services.* One of the issues might be that a particular population or community might argue and demonstrate particular need or capacity to benefit from the national broadband network. If you are able to bolster that by saying, for example, that Indigenous populations can better benefit from access—

			Chellew	**RESPONSE TO QoN 2**
				Once again I have had difficulty in finding statistics directly relevant to this question however I would like to direct the Senate Committee to The Indigenous Engagement Project who commissioned education and training specialist Professor Rod McDonald from the Ithaca Group to collate a report …
				…which identifies key strategies that have led to positive training outcomes with Indigenous learners, involved a comprehensive analysis of e-learning activity within Indigenous communities across Australia.
				The types of e-learning activity examined by the report included the application of electronic media in the delivery of training and education such as the use of web, CD-ROM or computer-based learning resources and online assessment activities.
				The report also reveals that there is considerable evidence of e-learning and innovation occurring within Indigenous communities at a national level, however much of this is happening in isolated pockets.
				Links to this report - http://www.flexiblelearning.net.au/flx/go/home/projects/2005/pid/154
				A link also to the digital divide project and a further report relevant to this question - http://pre2005.flexiblelearning.net.au/projects/digitaldivide.htm http://www.ntvt.com.au/index.cfm?fuseaction=page&p=199&sm=150
				Author: Graeme Sawyer: graemes@entity1.com Managing Director - entity1 Chairman of SITAC (Services Industry Training Advisory Council) NT e-learning reference group member e-Learning Toolbox Champion (Flexible Learning Framework) Mayor of Darwin
				Further researchers around these questions - Ruth Wallace: ruth.wallace@cdu.edu.au Richard Waring: richard.waring@cdu.edu.au Alicia Boyle: alicia.boyle@cdu.edu.au John Greatorex: john.greatorex@cdu.edu.au Bill Wade: bill.wade@cdu.edu.au Michael Christie: michael.christie@cdu.edu.au

			Evidence of how ICT is providing engaging communication tools for remote Indigenous communities (who have access to ICT resources): The Marvin Project Contact Nathaniel Peek - nathaniel.peek@nticed.com http://www.deewr.gov.au/Ministers/Gillard/Media/Releases/Pages/Article_081029_081155.aspx
3	8	Macdonald	**Senator IAN MACDONALD**—You mentioned about satellite not being perfect. I apologise for being late. I am not sure how technical you are, but are you aware of any prospect of satellite being made perfect? **Ms Chellew**—No. I am not very technical in this regard. I can only quote from what has been said here with the current satellite with what is available and that there are a lot of obstacles with that. I do not know the answer to that question. **Senator IAN MACDONALD**—Whilst I think 100 per cent of Australians should have access to broadband, I acknowledge that in some cases the actual physical infrastructure is very difficult to get there. Whether there is a prospect of getting a better wireless or a better satellite communication is something that has to be looked at further. Again, that is a technical area that I am not familiar with either. **Ms Chellew**—I heard recently at a conference about some discussion in America about a whole new way of providing internet to the American Native Indians. I could get back to you on that.

| | | Chellew | **RESPONSE to QoN 3**

A – TIM MASON (TECHNICAL CONSULTANT)

The major problems with satellite are:

1) that it doesn't support streaming media There's only a finite data capacity on a satellite transponder; about enough to allow for only   30 or so people to be watching "live" broadcast quality video at the same time.   (The system relies on the fact that under normal "internet" conditions not everyone is downloading at the same time, so you might have 1000 people being fed by satellite but only 30 of them are actually downloading at any moment in time the rest are looking at web pages, entering data, etc)
2) There is up to 2 seconds of delay between sending a commend and getting a response. This caused problems with peer to peer systems like "bit-torrent"
3) The "upload' capability is generally lower than the download. This is because high data rates require high power large dish uplinks that are expensive and hard to align (They also have high wind-loading so may be unsuitable for roof mounting. Local councils also tend not to want every house to have a 2M satellite dish on its roof).

Alternate connections are so called "wireless" which use small low powered high capacity radio systems to feed 20 or 30 homes from a "lamp-post" mounted "whip" antenna. It is possible to get very high individual data rates from such "micro cell' technology, It's basically delivering the same capacity as the satellite, but dividing it between only 20 or 30 receive locations. Using clever technology the same frequencies are re-used over and over again to feed other blocks of 20 to 30 homes.

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B – GERRY PYNE (TECHNICAL CONSULTANT)

Probably the best alternative is the Next-G network. This delivers pretty good connectivity at reasonably good consistency. The main problem with this is its prohibitive cost. I would consider proposing a rebate scheme for Next-G coverage in areas where there is no cable or ADSL coverage. This would work in most cases but there would still be some areas where Next-G is not available. In these cases I don't really have any sound suggestion other than to try to get a commitment that ADSL be made available to any location that is connected to the public switched telephone network. This is very possible – all that is needed is the Government will. |

			C – DANIEL FEATHERSONE (REMOTE MEDIA MANAGER) The Government needs to avoid making a 'one size fits all' decision in relation to infrastructure for remote Australia. Each region needs to be assessed independently for an appropriate and creative infrastructure solution. Hilly country, country that has 'wet' monsoon weather patterns, communities with small numbers all need special consideration. A 2 or 3 tiered solution could be identified. Daniel's further recommendation is that the Government negotiate with Telstra, for regions where fibre optic is not viable, for Telstra to give access to their HCRC network (telephony) of towers around remote Australia (that are 60 – 80 kilometres apart) on which could be mounted microwave links to distribute broadband to these regions. This line of site transmission of broadband would be economical using current tower infrastructure. Telstra have been un-willing to negotiate around this as a solution for remote Western Australia to date. The effect of the microwave on the telephone bands would need to be tested for any negative impact. Daniel further advises that remote broadband infrastructure when rolled out could be maintained by remote Indigenous media organizations and networks (already in place) with small/medium/large telecentres in place as appropriate, on remote communities. Remote Indigenous residents could then access the internet with support and training. Remote Media organizations currently support radio and television broadcasting in remote regions and are well placed to play this role. Expanding these services would be cost effective, generate employment, not duplicate services or infrastructure and give governance and self-determination to people on their lands over this powerful medium.