

PEOPLE WORKING WITH TECHNOLOGY IN REMOTE COMMUNITIES

ourplace

NUMBER 39



LAKE NASH YOUTH PROGRAM

ADRIAN SHAW: CUSTODIAN OF PEOPLES VOICES

**CAN YOU BE MY FACEBOOK FRIEND?
REACHING OUT ACROSS LANGUAGE GROUPS**

ON THE MOVE IN CENTRAL AUSTRALIA

**BUILDING A NATIONAL BROADBAND NETWORK
HIGHWAY: ARE WE THERE YET?**

**FINDING YOUR MOJO: NORTHERN TERRITORY
MOBILE JOURNALISTS**

PNG MOBILE PHONE EXPLOSION

BUSH TECHS: MAINTAINING YOUR BOUGH SHELTER • FLOODING: GETTING READY



Alpururulam lantern parade Jan 2010 PHOTO: SEAN SPENCER, BARKLY SHIRE COUNCIL

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WARNING:

This magazine contains images of Indigenous and non-Indigenous people. Caution should be exercised while reading this magazine, as some of these images may be of deceased persons.

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COVER PHOTO: Ashton Chungaloo holds lantern bat in preparation for the Alpururulam lantern parade Jan 2010, as part of the Lake Nash Youth Program. Source: Sean Spencer, Barkly Shire Council.



Adrian Shaw:

Custodian of people's voices

For the last 25 years, Adrian has been interviewing Aboriginal people for radio, giving them the voice to express their stories and share the context of their own social reality to listeners.

by HUJJAT NADARAJAH

Where are you from?

I was born in 1967, in Adelaide, South Australia. I've got a very close family with two younger brothers. Growing up in Alice Springs, my grandfather, Nugget Blackmore looked after me. He was very close to us — he used to call me his 'big boy'. Nugget Blackmore is from Kaititj and Waramungu language regions (near Tennant Creek) and Borroloola way. Nugget was part of the stolen generation. He was living in the bush when he was chased by horsemen and taken away at the age of five. He never saw his family again and grew up at the Telegraph Station Mission (Bungalow). My nanna Dulka was one of five Afghan girls who grew

up on the camel trains. My great-grandfather (nanna's father) was Fiad Mullahdad. He was invited by the Australian Government to bring his camels over from Afghanistan in the 1900s. So on my mum's side, I've got Aboriginal-Afghan blood in me. A lot of Aboriginal people in central Australia around Maree, Port Augusta and Oondnadatta share this heritage.

Why is radio important?

Radio in itself is such a powerful medium because its transportable — its in your car when you're driving to work. People listen to it at home. People can walk around with it. People in communities sit down and play cards, and they

listen to the talk-back shows. Hearing programs in language is powerful. Bill Bunbury used to tell us how 'radio is a more powerful medium because everyone who listens to a program or documentary paints a picture in their own mind — its all about the imagination'. With radio production, its all about the sound — if you edit down some powerful interviews, then mix this with some emotive music, that music carries peoples voices.

What happens when you interview someone out bush?

One of the best feelings is when you're interviewing an old person on remote community, and they

>



When I interview, after five minutes people open up and begin to tell their story. Sometimes you get chills up the back of your spine hearing what they have to say.

begin to tell their story. They've seen a lot of pain and anger, and yet they keep their culture strong. When I interview these people, after five minutes they open up and begin to tell their story. Sometimes you get chills up the back of your spine hearing what they have to say. I try to make it fun and have a laugh. That's one thing I've learnt about Aboriginal people — humour is everything. People can laugh through everything. You know part of getting through all that pain and anguish is laughing about it as well.

How'd you get into radio?

I was offered a radio cadetship at Central Australian Aboriginal Media Association (CAAMA). I trained in this for three years. It was interesting — being thrown in the deep-end; you've got to learn how to be live on-air by yourself. Sometimes a little radio station can seem a bit intimidating, but for me it's my comfort zone.

At the age of 23, I knew I had to begin learning from other radio producers, so I applied for a job with Western Aboriginal Media Association in Perth and moved over there.

That's where it all really started to happen and I began to learn how to make documentaries. I ended up staying in Perth for 10 years, working for five or six radio stations there and learning lots.

Tell us about your story about the late Louis Johnson

In Perth, I produced a documentary called 'A Tribute to the late Louis Johnson.' I was 23 when I made this program on Louis, a 19-year-old stolen generation Aboriginal youth. Returning home from his 19th birthday, Louis was killed by five non-Aboriginal youths one night. A cyclist found him and called the ambulance. Instead of taking him to hospital, the ambulance dumped him back at his home where he died of severe injuries. Louis's parents successfully sued St. John Ambulance for negligence and racial discrimination. My documentary won the Human Rights Commission 1992 Best Radio report. Winning this award, made me feel very emotional and sad. Archie Roach wrote a song shortly after his death, titled 'A song called Louie', as a tribute to his noble life.

Who was the late Rob Riley?

A memorable story I made was a documentary on the late Rob Riley's life. Riley was a strong advocate on Aboriginal people's rights to country and health services. During his lifetime, he set up the Aboriginal Legal, Radio and Health Services in Perth. He was part of the Land Rights movement in WA. They fought to retain the Noonkanbah sacred sites in WA. When he was a lot older,

Riley unfortunately took his own life. Three days before this happened, he rang me for a yarn. He was an incredible speaker, he empowered you when you heard him talk.

Tell us about your time at CAT

I produced Our Place radio programs for CAT for nine years. Its chasing those stories that keeps you motivated. I remember doing a story about water pipes in a community in Arnhem land, NT. Exposed broken pipes and water leaks were cultivating breeding grounds for hookworms and people were getting infected. Poor infrastructure can lead to health problems.

What drives you?

If you're ignorant, that creates hatred, and hatred creates racism. Martin Luther King said, 'people shouldn't be judged on the colour of their skin, they should be judged on their character'. I remember Sonny Levers, a former CAT employee, telling me that when people feel they've got no hope, they turn to alcohol and drugs and get angry. But anger is just one emotion. You have to gain some acceptance and not always be angry about Aboriginal issues. That's my experience. Everyone has different visions and hopes in communities. It is from life experiences that you live and lead. □

NEWS



Small water supply training workshop participants in Tennant Creek.

PowerWater and CAT run water workshops in Tennant Creek

Two-day training workshops on managing small water supplies, delivered by Power and Water Corporation's Remote Operations (PWC) and the Centre for Appropriate Technology (CAT), were held in April 2011 in Alice Springs and Tennant Creek. This training is part of PWC's Improving Water Management in Small Water Supplies in the Northern Territory (NT), a two year project, jointly funded by the National Water Commission (NWC) and the NT Department of Housing, Local Government and Regional Services (DHLGRS). The workshops were attended by 28 participants from a wide range of sectors including: Environmental Health, Shires, Resource Councils, Land Councils, Aboriginal community and education providers. Participants found the workshops informative and useful and commented that they could utilise their learnings in the development of Water Management Plans (WMP) for small water supplies.

The training utilised existing water management tools such as the Community Water Planner Field Guide that was developed by the Centre for Appropriate Technology and Water Quality Research Australia for the National Water Commission.

The next Water Management Planning workshops will be held in Jabiru, Nhulunbuy and Katherine during June and August, 2011.

For further information about the workshops, contact Dagmar Schmitt on ph: 08 8924 5211 or dagmar.schmitt@powerwater.com.au.

For information about the Community Water Planner Field Guide, contact Stephen Purvis on 08 8959 6200 or stephen.purvis@icat.org.au

Social Enterprise Hub Established

The Desert Peoples Centre, with the support of the Commonwealth Bank of Australia, has recently established a Social Enterprise Hub in Alice Springs. The Hub provides a range of services and supports to assist in growing a viable social enterprise sector in central Australia. Services include enterprise development workshops, business to business networking, access to marketing, PR, financial, legal and business services and advice. The Hub has close relationships with the Corporate and Social Enterprise Sectors nationally, aiming to leverage ideas and support for innovation across central Australia.

The number of businesses that trade for a social purpose, is growing across Australia. Social enterprises provide a unique and successful means of addressing community disadvantage and reinvigorating local economies. Social enterprises harness innovation to support community aspirations and need. They can emerge as new ventures of not for profit or for profit companies, through business buy-outs or through social entrepreneurship. All seek to increase social and community benefit through business, not just profits. The Social Enterprise Hub will be kick starting activities with workshops in June 2011. **For more information contact Jason Quin on 08 8959 6211 or jason.quin@dpc.edu.au**

Indigenous training boost in Desert Australia

A new Construction Training Facility for the Centre for Appropriate Technology at the Desert Peoples Centre was opened on Friday, 6 May 2011 by Minister Warren Snowdon. The Facility is a significant expansion of the capacity for construction and fabrication training for central Australia. Funding totalling \$1.5M was provided by the Australian Government Department of Education, Employment and Workplace Relations. Learning and enterprise activities in the facility are scheduled to begin in June 2011.



Warren Snowdon MP (left) and CAT Chairman Peter Renehan (right) cutting the ribbon to open CAT's new Construction Training Facility.



Can you be my facebook friend?

Reaching out across language groups



HUJJAT NADARAJAH speaks with APRIL CAMPBELL

Social media is penetrating remote Aboriginal communities offering a new means for news and information sharing.

Increasing numbers of Aboriginal community residents, children, youth and adults, are reaching out to try and connect to a world wide audience. Anmatyerre woman, April Campbell, is a social media user. From her we learn more about the impact of social media in TiTree, a remote Aboriginal community.



Facebook: developing influence and networking capacity

Anmatyerre woman, April Campbell speaks four languages: Warlpiri, Anmatyerre, Western Arrernte and English. Now she's learning a fourth one — Facebook. April uses Facebook to talk with her relatives and friends. She posts news and information she's interested in, and sometimes shares updates, pictures and videos on projects she's working on. She also makes DVDs and distributes them to the media. These have been aired on NITV. 'The community feels really happy and proud with their culture in the news, on TV, or in a book. Sometimes I get a lot of phone calls from friends saying 'we saw you on TV, it's really good' says April. People from other language groups are starting to connect with April using Facebook. As April describes, 'sometimes people who want to use our videos, email us or talk through facebook to ask for permission'. Other Aboriginal people view her work and begin networking with her online. They get in touch with her via Facebook, asking her what's she's doing now and if they can work with her.

As April's online profile rises, a challenge with this exposure stems from learning how to manage the

preference for working primarily with your own language group. 'Sometimes if they're different groups, we feel scared and we don't want to show our work to other people. If somebody I don't know, for example, sends me a message, saying I want to see your picture or video, I feel a bit scared unless they come and talk to me, face-to-face. If I meet them I feel easier sharing my work.'

Learning to build networking relationships based on trust and extending across language groups is a new pattern that Facebook is helping to initiate. Linked in with this are issues of intellectual property and copyright. As April explains, 'If I don't see you, I can't trust you. You might take things away. If I see pictures [of my work] online that haven't been authorised and things have been changed around, I feel bad. Especially if this is to do with my country or songs. So now I always assert my copyright.'

Social media and the maintenance of Indigenous knowledges

April works as a teacher's assistant at Ti Tree School in central Australia. One project she works on is helping her people use the Indigenous Knowledge Centre database. >



PHOTOS BY GAIL WOODS, BATCHELOR INSTITUTE OF TERTIARY AND INDIGENOUS EDUCATION.

School internet access happens only when there is teacher supervision. Kids can Google, but can't look up any site they want. However, when kids, youth and adults travel to town (Alice Springs), they can access other facilities.

This is enabling more time and space to explore and share online, beyond school online learning activities.

PHOTO SOURCE OF STUDENTS: GAIL WOODS, BATCHELOR INSTITUTE



April Campbell checks her Facebook on her iPhone.



Photos (826)



Aboriginal learners shooting for their animation clips.

'At TiTree, there's a Knowledge Centre. We put things in here to save for our next generation, so our kids can look back and see what their grandparents have been doing. We put all the photos, stories and traditional songs about the country,' says April. Established a few years ago, the Indigenous Knowledge Centre allows community people to upload cultural data, as well as access the Internet. Elders are involved in the process as they play an important role in passing on knowledge. 'They're happy to have stories recorded, or talk about the language, country or kinship', says April. She works with the 'middlies' at the school and takes them out bush with the elders. There, songs and stories shared by the elders are recorded by the kids, videos filmed, and photographs taken.

What is interesting to note is that while the images and files (posters,

yearbooks, PowerPoint presentations) are uploaded into the database, they are also beginning to find their way onto YouTube and Facebook pages. 'The kids like putting up photos of themselves painted up, out bush, on Facebook' says April. YouTube hasn't been picked up much by the adults but the kids are definitely into it. YouTube is developing as a means to see and express culture. As April observes, 'the kids have been watching YouTube — looking at things that other people are doing. There was one video from the Top End that the kids were looking at — dancers.' The impact of YouTube is well-received too. 'I think YouTube is very good to show examples of what kids are doing, so everyone can look at it. Some people don't know what our culture is, so we really want to show our culture through YouTube' says April.

Reflecting on how the database impacts cultural norms, April shares how it has changed. 'We can use and look inside women's side [of the database] but not the men's side. We can't get into men's side because we've got to respect Law. Its still really restricted. It is something special there, its important, like sacred sites' says April. The men's-side will be lost, if men don't share the knowledge. When this new technology came to the community, some of these elderly people had forgotten their own stories and songs.

'The technology helped us bring this back. Elders encourage us to keep on teaching our stories and culture, using the technology' says April.

Bluetooth and SMS: Internet alternatives

Use of Bluetooth technology is also emerging in remote Indigenous communities, where Internet access is restricted. SMS messaging and Facebook posting in language (in this case, Anmatyerre) is also occurring. Bluetoothing involves using open wireless technology to share data over fixed distances using mobile phones. 'Sometimes the internet goes down, so people are using mobile phone for SMS and bluetoothing. Kids and adults — everybody is doing it. Teenagers are looking at video hits and movies. Little kids look at cartoons. They get all this stuff from internet, download it and share it.' April says. With the SMSing, kids are learning language via texting their mates and posting on facebook in Anmatyerre.

But open data sharing also brings a few challenges. As April notes, 'swearing is being picked up from watching video clips. They start swearing. They're learning this from video clips and movies and they know the meaning of what they're saying' says April. Swear words are also now being published online. 'I've been seeing this a lot on Facebook ... when they use their language, in SMS or

“

The kids like putting up photos of themselves painted up, out bush, on Facebook' says April. YouTube hasn't been picked up much by the adults but the kids are definitely into it.

YouTube is developing as a means to see and express culture.



Screen shot of animation made by Aboriginal learners that is being shared via Facebook and YouTube.

text, even via email or Facebook, sometimes they'll swear in language and text this. This is a new way of using their own language. When I see it in language, I feel really bad.' Consequences of this can be harsh. Parents and elders are called in and disciplinary measures agreed.

Internet access

Access to internet is a challenge confronting many remote Indigenous communities. While some schools have internet in classrooms, it isn't readily available elsewhere. There are also restrictions on the type of access people can have. 'In our school classrooms with Internet, we don't let kids use the Internet all the time, we only let them use it when they're doing activities. We let them Google. Teachers are always present when they're doing this, so they can't get into other programs. They can't view video hits. We don't allow that' says April.

So how are kids accessing music, videos, cartoons, news stories and other popular sites? Many go to town (Alice Springs) to get this type of access. In town, 'they go to the library to get Internet and sometimes the Knowledge Centre has Internet and some of the parents have their own internet, so the kids go there to use it too' says April. Parents are also starting to buy modems for home internet access. Smart phones

are also starting to become popular, especially with teenagers, who will use them wherever they can get service to access the Internet, view video clips, check Facebook and bluetooth each other.

Is social media changing the way we work with each other?

Overall, social media is starting to influence and shape behaviour and create new patterns of engagement in the remote Indigenous context. This is no different to what we are seeing globally; where many Indigenous and ethnic groups are using social media to document and promote culture, traditions, talents and enterprises and create broad networks of friendship and support. For April, social media technologies present challenges both to the old way of doing things and in guiding ethical and appropriate use by the younger generations. But they also present new opportunities for connectivity and strengthening the retention of cultural knowledge. □

ADDITIONAL RESOURCES:

www.alpurnurulamyoung.com
 www.musicoutback.com.au
 www.desertpeamedia.com.au
 www.tangentyere.org.au/services/family_youth/caylus
 www.caama.com.au
 www.ntmojos.indigenous.gov.au
 www.playford.sa.gov.au
 www.curriculum.edu.au/mceetya/steppingindex.htm
 www.ntyan.com.au/index.php/directory

WHAT IS SOCIAL MEDIA?

Social media are media for social interaction, using highly accessible and scalable communication techniques. Social media uses web-based and mobile technology to turn communication into interactive dialogue. Using Web 2.0 technologies, they allow the creation and exchange of user-generated content.

Facebook www.facebook.com

Facebook helps you connect and share with people in your life. Facebook is a social utility that connects people with friends and others who work, study and live around them. People use Facebook to keep up with friends.

Twitter www.twitter.com

Twitter is a website, owned and operated by Twitter Inc., which offers a social networking and micro blogging service, enabling its users to send and read messages called tweets. Twitter is the best way to share and discover what is happening now.

YouTube www.youtube.com

YouTube is a place to discover, watch, upload and share videos. YouTube is a video-sharing website. On YouTube you watch music videos from all your favourite artists. It also shows feature lengths, shorts and downloads of various movies.

LinkedIn www.linkedin.com

A networking tool to find connections to recommended job candidates, industry experts and business partners. LinkedIn strengthens and extends your existing network of trusted contacts.

Digg www.digg.com

Digg is a social news website. It shows the best news, videos and pictures on the web as voted on by the Digg community. Its main function involves letting people vote stories up or down, called digging and burying, respectively.

PNG

mobile phone growth explosion

There has been an explosive growth in mobile phone availability and use in Papua New Guinea since mid 2007, when Irish telecoms company Digicel became the second supplier in that country.



PHOTO SOURCE: John Concoran, Digicel Group.

Traditional Papua New Guinean Hela Wigman enjoying the benefits of Digicel's affordable and accessible mobile service.

by ANDREW CROUCH

Since mid 2007, the number of mobile customers in Papua New Guinea (PNG) has grown from 50,000 to over one million, and coverage has grown from five main urban centres to over 600 locations around the country. Two articles in a recent *Weekend Australian* (March 26, 2011) chronicle this phenomenon, and how it is changing the social and economic life of PNG.

The mobile coverage map for PNG reinforces the pace of change. It reveals that about one third of the country's land area is now connected, about double the coverage achieved by Australia's combined carrier networks.

At first thought, you might wonder why a very poor country such as PNG can achieve such growth, while much of Australia languishes behind. After all, PNG

has huge natural and economic impediments to growth, including some of the most difficult terrain in the world (there is not a single road linking the northern and southern halves of the country. Seventy-five percent of the population live as subsistence farmers and two million people, a third of the population, live below the poverty line. In relative terms, the PNG Gross National Income per capita is about five percent of Australia's.

It is necessary to look behind these global statistics to get some understanding of how PNG compares to say, the remotest parts of Australia in relation to access to mobile telecommunications services.

Population density

PNG has an average population density of about 13 persons per square kilometre, which is very low

on the world scale. Other countries at around this population density include Finland, New Zealand and Argentina. Like Australia, PNG has some big towns on its seaboard, but also some very remote jungle-clad areas in the interior that are almost unpopulated. However, Australia as a whole sits close to the bottom of the scale at three persons per square kilometre, ranking just above Namibia, French Guiana and the Western Sahara.

When only the sparsely populated remote areas of Australia are used for comparison with PNG, the difference becomes stark. The region of Australia formally classified as Very Remote has a population density of 0.03 persons per square kilometre, denser only than Greenland and Antarctica. Thus PNG has one advantage in terms of a moderately compact market size.



The mobile coverage map for PNG reinforces the pace of change. It reveals that about one third of the country's land area is now connected, about double the coverage achieved by Australia's combined carrier networks.

Moulding service offerings to the market

Despite the fact that much of the PNG population is desperately poor, Digicel has cleverly targeted its product marketing and implementation in a number of ways:

- Prices for basic phone call services are cheap. Peak daytime rates equate to about 38c Australian per minute (pre-paid), reducing to half that rate in the off-peak period. Post paid business account calls are even cheaper.
- Data calls are by contrast extremely expensive, at a flat rate of about 75c Australian per Megabyte.

These price settings taken together are indicative of a radically different strategy to that adopted by Australian service providers. They reflect a clear focus on capturing the nascent voice call market, while restricting the availability of mobile data to the very small sector of the population with high disposable income.

This pricing strategy mirrors the network rollout /implementation strategy, which has been crafted to achieve the most cost effective method of rolling out infrastructure in very challenging terrain. In the

rugged mountainous PNG forests, the backbone network linking the tower sites comprises mainly point to point wireless links, which are far more economical to implement than cable of any kind, since all that is required to achieve a multi-kilometre communication link is line of sight between the end points. The tower sites themselves are mostly equipped with diesel or hybrid solar/diesel power plants and where necessary helipads, making them independent of the need for external physical connections of any kind, and requiring only an occasional maintenance and fuel supply visit once operational. However, wireless has limited capacity compared with optical fibre, so much of the PNG network is constrained in terms of mobile data growth. Hence the high prices to heavily dampen growth. This strategy has enabled a very rapid rollout of voice facilities, which is the shortest path to both customer take-up and an early cash flow return.

Could a low cost digicel model fit for remote Australia?

Australia has taken a different approach. Noting that in developed markets over the longer term, data traffic will overwhelm the relatively small demands on

capacity generated by voice calls, carriers here have built large network capacities to support intensive marketing and take-up of their mobile data services. As the data volume has increased, they have also more recently offered these services at relatively low tariffs (such as 2.5c per Megabyte on a long term plan). This 'heavy duty' approach has come at the cost of a big long term investment in network infrastructure to carry the mobile data across the backbone network, usually over buried optical fibre. While such a strategy based on investment in high capacity fixed assets fits the long run evolution of the mainstream Australian market, it struggles to be viable at the margins, where large distances and sparse populations with mainly basic mobile communications requirements can not justify hundreds of kilometres of fibre optic cable runs. Consequently, the most distant of these scattered settlements, particularly many Indigenous communities, will not only miss out on mobile data, but have so far missed out on mobile coverage altogether.

A low cost wireless based model such as Digicel's could well be a good fit for some of Australia's remotest locations. □

On the move in central Australia: remote transport update

by NOAH PLESSET

What's all this talk about transport lately? Families stranded in town, no way home. People using unsafe vehicles, ending up in court. In Alice Springs and nationally, we've had a run of headlines like 'Free bush bus call by leaders,' or 'Losing the plot on traffic crime in the bush.' Is there a remote transport problem here? Yes, absolutely. Are remote transport and mobility issues a new thing for remote communities? No.

In central Australia public debate has recently focused on the issue of Aboriginal people travelling across the region, between remote settlements and Alice Springs. One concern is how the short term population mobility affects the delivery of services. Another is the inadequate or unsafe modes of transport which often facilitate such movement. Often, solutions proposed to problems of remote transport and mobility aim to stop 'urban drift,' or to transport the 'drifters' back to their home communities. Even if this is an aim of policy, Alice Springs still provides services to more small Indigenous settlements than any other centre in Australia. Given that most remote settlements are below the population threshold that can support basic services, people will continue to travel to Alice Springs. With this likely ongoing pull towards town, how are people facilitating transport to access services now, and what are the future prospects for these means of transport?

Since 2005, not much has changed

In 2005 I looked at transport issues and asked the NT Motor Vehicle Registry (MVR) for a snapshot of vehicles up to 2.7 tons, including passenger cars, off-road passenger vehicles, and light goods vehicles. This article provides an update on remote transport, comparing the information from June 2005 with a new MVR snapshot from March 2011. By looking at the vehicle fleet in central Australia and the populations it serves, we get a better picture of some ongoing remote transport issues that may have contributed to recent headlines and debate.

People and motor vehicles across central Australia: what are the numbers?

Firstly, to provide a rough measure of potential transport demand, we compare the number of people in a region with the number of registered motor vehicles. In Alice Springs (0870) in both 2005 and 2011, there were approximately 1.6 people per registered vehicle 2.7

tons or less. Out of town (0872) we find an increase from 10.7 in 2005 to 12.9 in 2011 people per vehicle. This is for the most part the result of increased population, potentially leading to greater transport demands in remote areas. Secondly, we look at one measure of the possible number of unregistered vehicles, the rate of lapsed registrations. Just as in 2005, the big number in 2011 is the proportion of unregistered vehicles relative to current vehicle registrations for 0872. We see that, in both periods, the total lapsed registrations are equal to about 38% of current registrations in the out of town region. The consistency of this proportion over time suggests that a high proportion of vehicles are not being re-registered out bush.

What do we find in Alice Springs town?

In 2011 the number of lapsed vehicle registrations is equivalent to about 22% of the current registered stock, above the 21% we found in 2005. Note here that by comparison for March 2011, Darwin (0810) had lapsed



PHOTOS PROVIDED BY: Centre Bush Bus

registrations equivalent to 14.5 % of current registrations. This reinforces the suggestion that when compared with Alice Springs town or other NT regions, remote central Australia has a relatively high rate of lapsed registrations which persists over time. This translates to a relatively high number of unregistered vehicles that could potentially still be in use out bush. We can see that for the 2011 snapshot, when lapsed registrations are counted as an unofficial component of the total fleet, persons per vehicle in 0872 declines by about 3.5 (ie. from 12.9 to 9.4 people per vehicle). In 2005 the difference was 3 people per vehicle (from 10.7 to 7.7 people). This may be a rough measure of the incentive to drive vehicles with lapsed registrations in remote areas.

What do we learn from these numbers?

For 2005 and 2011 data alike, people per vehicle and the rate of lapsed registrations is much higher in 0872 than in 0870. At one level this is a simple story about intensive use of cars on poor quality roads, and of people being unable to keep vehicles roadworthy and registered. With annual registration costing at least six hundred dollars, even a vehicle in reasonable repair >

People per vehicle and lapsed registrations for 0870 and 0872¹

	2005		2011	
	Vehicles	Persons per vehicle	Vehicles	Persons per vehicle
0870 District				
Registered	14961	1.6	15820	1.6
Total Registered +Unregistered<=1yr	18090	1.3	19326	1.3
Ratio (%) Unregistered (lapsed)/Registered	20.91		22.16	
0872 District				
Registered	1581	10.7	1423	12.9
Total Registered +Unregistered<=1yr	2184	7.7	1963	9.4
Ratio (%) Unregistered (lapsed) /Registered	38.14		37.95	

¹Because of the format of MVR figures, we are forced to use Australia Post postcode areas for 'in town'/'out bush' comparisons. I focus here on the postcode regions Alice Springs Town (0870) and the surrounding area (0872), within the boundaries of the NT. Remote registrations with PO Box addresses (postcode 0871) are included in the 0872 count. For 2005, I use populations from 2006 census data for postcode districts. Estimated 2011 populations for the same districts are calculated based on ABS estimated residential population growth for statistical local areas making up central NT. I note that postcode districts are not the most reliable census geography, but the use of this geography is necessary due to the format of NT MVR data.



requires the investment of significant resources annually. Even if a vehicle could be registered, capacity to access this level of resources would typically be associated with mainstream employment. We also know from the 2006 census that there is a very low mainstream employment to population ratio in remote central Australia. Existing employment options including CDEP have not delivered the level of income which would be required for a viable private remote transport fleet.

Road safety and traffic offences

With the rates of lapsed registrations we have shown, it is not surprising that traffic offences continue to be a big problem in central Australia. In December 2010 Bob Gosford, columnist for Crikey.com, drew attention to the huge number of driving charges clogging bush court sessions. In three separate reports, Gosford describes Local Court sessions in Yuendumu and other larger remote communities, where traffic offences typically make up about 30-50% of the charges heard.

More charges predictably add up to more fines, and with the cost of fines often unaffordable for people without any foothold in the labour market, the potential that more Aboriginal people go to prison. Gosford also cites academic Thalia Anthony whose research shows that traffic offences in the NT have increased 250% since the Federal Government's NT Emergency Response. They suggest that over-policing has led to the criminalisation of Aboriginal road use and creative car maintenance practices that were not previously targeted by police.

Clearly, traffic law enforcement is not as effective as it could be. Current criminal sanctions including hefty fines do not influence the behaviour of many remote road users, when it comes to driving unlicensed or driving unregistered vehicles. However, at another level, it is difficult to quarrel with the recognition by police that there are real problems out bush with dangerous modes of transport. Motor vehicle related injuries and deaths disproportionately affect Aboriginal road users. The NT Police Force Road Safety Strategy 2008-2013 provides

a profile of traffic incidents which shows that, in terms of deaths per 100,000 people, for the last decade the NT has typically been twice to three times the national average. Comparing regions within the Territory, in 2007 the Alice Springs and Southern Region had very high fatalities, at 54.1 per 100,000 — twice the rate of the Territory as a whole (26), and about seven times the nation-wide rate (7.7).

These numbers reinforce a couple of points: Firstly, road safety in southern NT is a real problem, not just a result of over-policing; secondly, the current regime of enforcement is not succeeding in its goal of getting people to use the road in a legal and safe way. Together with evidence about high rates of lapsed registrations contributing to a substantial fleet of unregistered vehicles, this raises further questions about the sustainability of the remote transport system. What we have is a situation where people drive what they have, a solution that will continue to produce poor public health outcomes, and continue to land Aboriginal people in court.

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Given its strong and growing customer base, the demand-responsive business model adopted by Centre Bush Bus should be closely considered in any private or public sector efforts to improve remote settlement transport.

Fines and enforcement mechanisms can be altered, but the dangerous remote transport fleet in itself is a problem.

Centre Bush Bus: meeting demands for safe and reliable transport

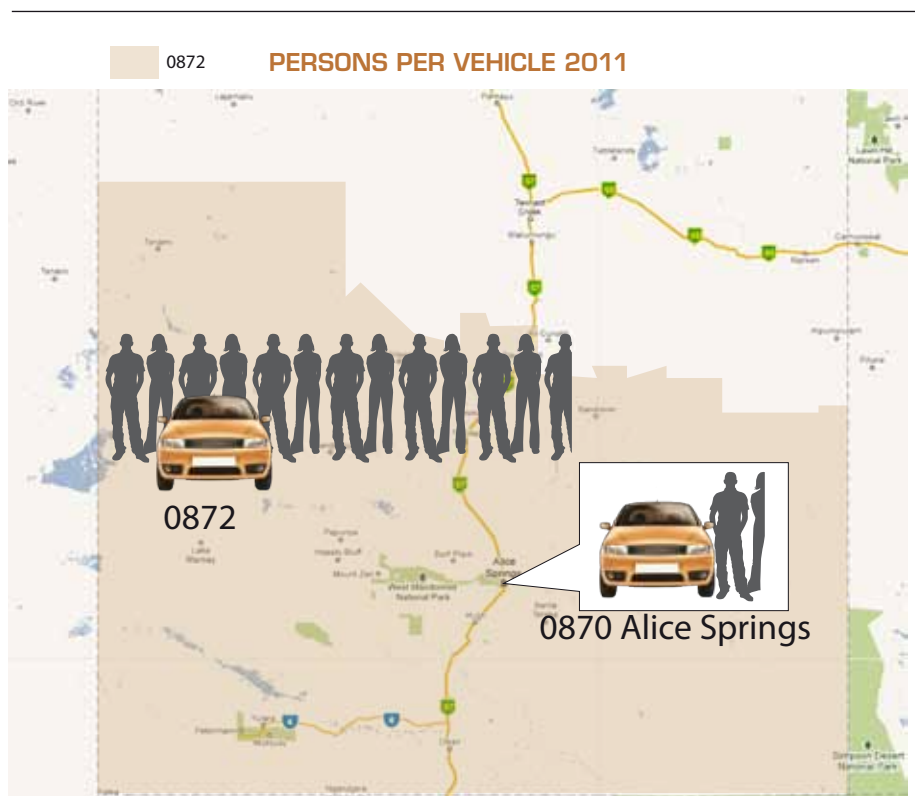
Based on available experience, public transport may be part of the solution. The main example here is the Centre Bush Bus, which is the only fee-for-service transport provider to remote areas in central Australia. In 1997 they provided a single route between Alice Springs and Docker River. Twice weekly services now extend to Tennant Creek, Yuendumu, Kintore via Papunya, and even across the SA border to Pipalyatjara. The service to Kintore is often sold out.

Their vehicle fleet has expanded to 17 buses of various sizes, and they employ seven drivers full-time plus casuals as needed. Apart from an additional express service to Tennant Creek, routes take in many smaller communities along the way.

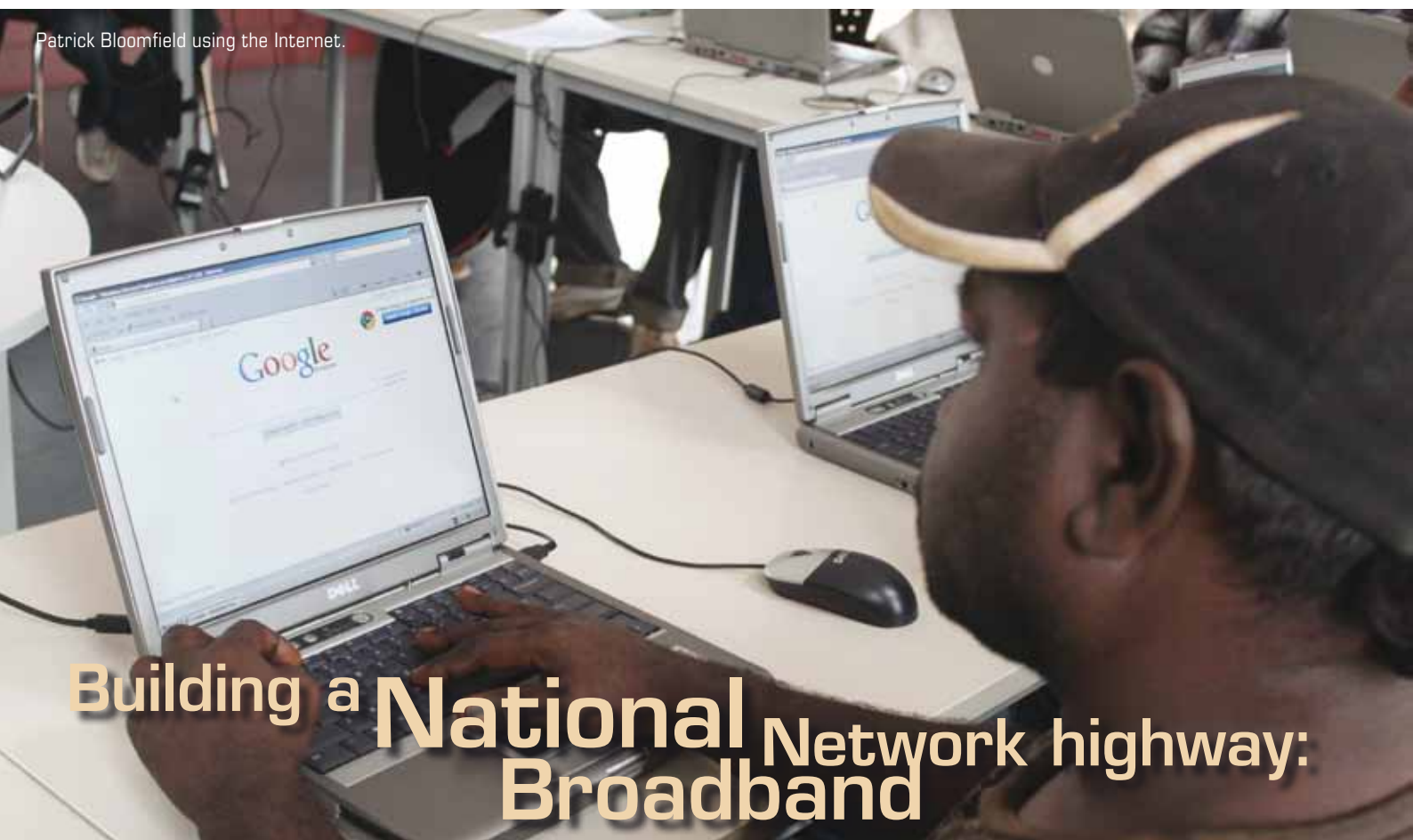
According to Tahnee Passmore, Assistant Director of Centre Bush Bus, all of these routes have been established on a demand-responsive basis. The company maintains close community links and responds to requests for new routes by looking at potential passenger numbers, and then establishing a trial to see if they would be viable for a regular service. Other factors make the Bush Bus attractive to its predominately Aboriginal customer base. The service is door-to-door, and the company

allows passengers to pay for transport on credit, using a Centrepay form from Centrelink. Bush Bus assumes the risks of these credit arrangements, and allows passengers to stagger payments over time. Given its strong and growing customer base, the demand-responsive business model adopted by Centre Bush Bus should be closely considered in any private or public sector efforts to improve remote settlement transport. Not only have they proven successful in meeting transport demand on a sustainable basis, they are a good example of how remote settlement residents are a potential consumer base for other forms of enterprise and development, given the right business model.

If dangerous vehicles continue to be an issue for some time, apart from public transport, the only solution is a more general one: increased economic participation, allowing for the possible improved safety in private modes of transport. Nobody ever said that large scale movements of people between urban and rural areas, especially on degraded roads or in poor quality vehicles, would make for easy public administration and policing. It should be noted here that population mobility across the region surrounding Alice Springs, combined with the relatively high Indigenous population growth, is something that policy makers have been in a position to know about for decades. Given these patterns will not go away, we now need to act on the evidence, support further public transport growth, and seek opportunities for creating work across central Australia, which has to be part of the long-term solution to unsafe transport. □



Patrick Bloomfield using the Internet.



Building a National Network highway: Broadband

Are we there yet?

by ANDREW CROUCH

Australia's National Broadband Network (NBN) has become a hot media and political topic, often described as this country's biggest ever infrastructure project — the Snowy Mountains Scheme of the 21st century. The NBN will involve a massive public investment over the next 10 years, and yet it is not entirely clear to most people even now what exactly it is. Some envisage it as a technological 'silver bullet' which will fill all the gaps in communications across our vast continent for all time. Others see it as an opportunity for people to shape a truly networked society for the future. In fact the NBN has elements of both.

A closer analogy of the National Broadband Network might be to liken it to a brand new universal network of highway quality roads, which most residents of Australia will be able to drive onto right from their front gate. It will be a toll road network, but the price to drive on it will not be based on distance travelled and in contrast to the real road network, speeding will be encouraged, particularly in built up areas. The developer will build and operate the roads, bridges and flyovers, and will use a network of retailers such as Telstra, Optus, Internode and others to sell the 'right to travel' to businesses and the general public.

The significant point about this toll highway analogy is that while NBN and its 'sales team' will be quite happy to get us there in all weathers with the minimum of traffic delays, it will be up to us to choose when and where we want to go, and to make sure that the vehicle we select is designed for the journey. Or to put it another way, the NBN in itself is what is called an 'enabling' technology. It is only a means to extend the capacity and reach of the Internet, and NBN Co. (a Government-owned wholesale monopoly company)

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The big benefits in terms of services are likely to be in the health and education sectors, with much wider access to fast and high definition tele-health and distance education tools.



will not get involved in selling and delivering applications to residential customers. The opportunity is then what we make of it.

How to reach remote communities: mobile phone coverage challenges

For people in capital cities, the speeds that NBN will deliver are to a fair degree available now, for those who are prepared to pay for them. So let's look more closely at the remote areas, the area of most interest to us. Satellite technology will be used by NBN to reach the most remote 3% of Australia's population, so this will be the technology that targets most remote Indigenous communities.

The first point to make is that most of our smaller communities do not have mobile phone coverage at present, as this requires very expensive land based network connections to the rest of the country. NBN will not provide mobile capacity either, so future computing communications with these locations will be built on NBN's improved fixed satellite connections. People planning for these can reckon on the connection speed increasing substantially from the best available at present (about 4Mbps download) to peak speeds of 6Mbps over the next few years, to 12Mbps when the NBN satellites are in operation from about 2016. More importantly, as existing users

of satellite broadband have probably experienced, speeds can fluctuate with time of day and the number of users online (particularly in the late afternoon and early evening). This annoying fluctuation will be ironed out to a significant extent in the longer term, because the number of customers that the new satellites are being designed to support will be much greater. This will effectively mean more consistent and predictable communications. The latency or delay associated with satellite won't change though, so two way real time applications such as voice phone calls and video conferencing over satellite will improve but the 'customer experience' for these will not reach the best land line quality. Having said that, starting later in 2011, NBN Co plans to provide different classes of service to separate the phone calls from general web traffic, to allow retail internet service providers (ISPs) to offer the best possible performance for this kind of service. The final NBN satellite solution is expected to deliver cost effective monthly quotas of up to 60 Gigabytes, an option that costs several hundred dollars per month today.

Pricepoints for high-speed internet: Why pay more ?

The second point relates to price (see sidebar). Effort is being made to provide a step change improvement in performance at prices that people are generally paying now. This is good marketing, as people are unlikely to pay a premium for a very high speed service until they have some confidence that it is truly high speed, and that they have a use for it.

What could NBN be used for at home?

Thirdly, it may be useful to make some predictions about the use of NBN in different home settings, and NBN in business, the service sector and government. Although most

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Chronology of Australia's National Broadband Network

APRIL 2009: Australian Government announces an ambitious new NBN that will deliver superfast broadband for all Australians, at affordable prices, with an objective of providing broadband via fibre to 90% of premises, and next generation wireless and satellite technology for the remaining areas. This initiative will take eight years to complete, and is to be accompanied by an improved regulatory framework.

MAY 2010: The NBN Implementation study is released. The study confirms that the Government's objectives can be achieved within the Government's initial \$43 billion estimate. Subject to agreement with Telstra, the new fibre network will ultimately replace the existing copper network, and services will be delivered through a new Government-owned wholesale monopoly company NBN Co. The study concludes that private investment will be hard to find, and the venture will have to be underwritten by the Government.

JUNE 2010: A deal is done in principle between the Government and Telstra, in which Telstra will be paid for the use of its existing ducts and fibre, and will progressively migrate its own copper network traffic to the NBN.

DECEMBER 2010: enabling legislation passes both houses of parliament, after the Government concedes that the network will be built using an 'outside-in' approach — the regional areas will be given the first priority in the rollout of services.

JANUARY 2011: NBN Co's first three-year corporate plan is released. The plan proposes an entry level 12Mbps service at the same wholesale price, delivered over fibre, wireless or satellite. This service is estimated to retail to customers at about \$56 per month. Fibre coverage is expected to equate broadly to all communities with over 1000 premises gaining access.



people in remote communities have very limited access to home computing and the internet at present, the vast majority of Australians have regular access at home. This mainstream group will notice a big increase in available connection speeds and a better 'customer experience' than they can get now for the money. That will also mean easier downloading of large files such as videos. Applications incorporating video material are likely to flourish.

Translated to homes in the remote bush, the increased speeds will allow each physical connection to go further, so that clusters of homes in communities may be able to share the cost of operating a single satellite service and obtain adequate performance for each connected computer. The choice between satellite connection on a one-per-home model and a single shared service with say wireless distribution within the community will depend on how much public subsidy is offered for one or the other of these models, since installation and support costs are much higher in remote areas. Either way, a big change in take-up is likely to need a high level of subsidy. The Australian Government has not announced its future plans in this regard once the existing satellite broadband subsidy scheme (the Australian Broadband Guarantee) ends in mid 2011.

Potential benefits of NBN for remote service-providers

The big benefits in terms of services are likely to be in the health and education sectors, with much wider access to fast and high definition telehealth and distance education tools. These are likely to penetrate the regional centres first, and extend over time to smaller population centres and ultimately to remote homes. An example is the Health eTowns project, which will deliver improvements in health and education particularly for Aboriginal people in 17 Northern Territory remote communities. The project will provide specialist healthcare services including video, audio and data sharing facilities to assist health professionals with remote monitoring, consultation and treatment of patients. The project will also deliver interactive online education and training programs that allow students and trainees to access mainstream education programs that are currently only available to students in larger cities. □

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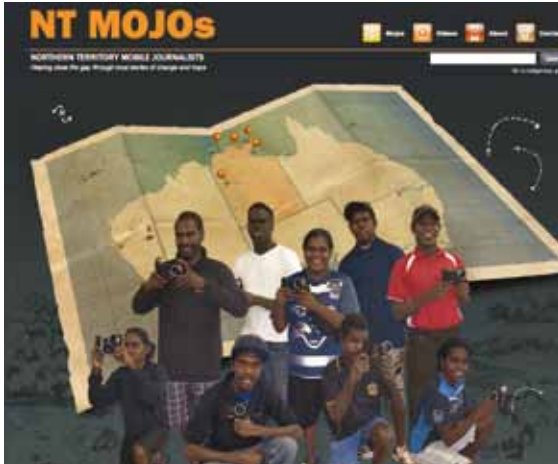


Photo: Batchelor Institute of Indigenous Tertiary Education

www.ntmojos.indigenous.gov.au

Lake Nash Youth Program



Photo: Sean Spencer, Barkley Shire Council

Launched by CAYLUS and the NT Barkly Shire Council, this website allows people to connect with and enjoy the work of Aboriginal young people living in Lake Nash community (Alpurrurulam). The site features blogs, videos music and activities that youth have been working on including: bush trips, local bands, basketball competitions, lantern parades and hunting trips.

A highlight of this website is the Lake Nash Music room, that allows you to kick back and listen to fresh tunes created in Lake Nash by budding young musos. Video clips that focus on community life, also enable you to and go and see what's happening out there in the community.

Facebook provides a useful way for users to share videos and music found on the site, as well as post comments and feedback. Photos on the site show a number of workshops where people are involved in making clips, recording and producing music. The site developers describe how 'this website is most definitely a work in progress and will constantly evolve as more work gets finished, so please return regularly to see what's fresh on the site!' Enabling young people to tell the stories of the Lake Nash community through writing, music, word, pictures and film is a great way to connect to other communities in Australia and world wide.

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