

North Star Public School

Edward Street

North Star 2408 NSW

I am writing this submission on behalf of the student and staff of North Star Public School. North Star is a small village situated in Northern NSW, close to the NSW-QLD border. It is approximately 50 kms south of Goondiwindi and a little over 100kms north-east of Moree. The school is a two teacher school with a current enrolment of 34 students. The school has a proud academic tradition, performing consistently well when measured against national testing standards in NAPLAN and internationally in the University of NSW ICAS competitions. Further the school has a supportive and involved community through its P & C, the North Star CWA and the local North Star Sporting Club.

Since 2003, the school's internet has been serviced by a 2-way satellite as part of a (currently named) Department of Education and Communities contract with Optus. The school is one of four schools in the New England still on satellite internet. Schools either side of us have access to ADSL technology and are no more or less geographically isolated than us. Our line speed is limited to a theoretical maximum of 2Mbps (Megabits per second) compared to a national average of approximately 6.28Mbps (<http://goo.gl/eyPls>). That signal must then be divided up amongst about 20 computers. The speeds experienced over a period of time have proven manifestly inadequate and the school is seeking ways to improve our current situation and bring our facilities up to a standard that is considered normal at an overwhelming majority of schools in the state. The DEC has given no indication that they are willing to upgrade our satellite connection beyond its current speed. The NBN is of little help as it could be many years before anything is done in our area, if at all.

Our students are going to leave primary school and head off to a myriad of high schools across NSW and Queensland, we must ensure that they are adequately prepared for the 'digital revolution' that is taking place in high schools. We can't have them playing catch up in their early years of high school, some will manage and more their skills beyond what is required but some will feel out of their depth and run the risk of being left behind.

*Question 7 Do you have ideas for ways in which high-speed broadband could enhance the delivery of education outcomes in regional communities?*

At its core computing is based on three factors: hardware, software and the infrastructure that supports it, via the internet. Hardware is the machine you're using and the software is what makes it work. Here geographic location is no impediment to what you can buy. Don't like the choice you can get in your most local shop you can purchase a computer and the software to run it from anywhere in the country, or even the world if you so choose.

Where the equality divide becomes apparent in Australia is in the infrastructure that delivers the internet to people across the country. In the major population centres you have a range of choices. This may include superfast fibre optic cable, where light is able to deliver data at blindingly fast speeds. Or ADSL, which is the technological attempts to squeeze the last drops of use from an aging copper telephone network poorly equipped to carry modern demands for internet speeds for the long term that requires a proximity to a telephone exchange. It as a stop gap wired solution that currently provides internet access for a majority of Australian consumers.

In rural areas such as our own access is often restricted to wireless technologies. Telstra's 3G network is not optimised for data but its newer 4G network will ultimately provide faster speeds. Satellite is also capable of greater speeds, but both these solutions struggle to provide adequate usage for a number of reasons. They are expensive; a consumer will pay the same price for 1/20<sup>th</sup> the data amount of a fixed line ADSL or cable customer. So for essentially the same price you get much, much less. Wireless technologies also suffer from signal congestion, which is to say the more people connected to the signal the slower the speeds will be as the signal is divided up amongst the users. Cable and ADSL do not suffer from the same problems.

There is often talk in education of the urban-rural divide. NSW Education Minister Adrian Piccoli recently highlighted this as an issue of pressing importance. High speed broadband enables isolated rural schools to connect with other schools through the use of video conferencing equipment thatr has been placed in every public school in NSW at considerable expense. Unfortunately any school on satellite internet is unable to use this technology, ever.

*Question 8 The committee would like to hear from individuals and organisations about their participation in, experiences of and expectations about education service delivery.*

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The digital revolution that is touted as taking place in high schools across Australia needs a number of factors to ensure that it is successful. Students need adequate grounding in computers in their primary school years. It is no use arriving in high school being unable to read or write, yet we are allowing the digital equivalent to occur. Students need exposure to Web 2.0 technology and cloud computing, neither of which is possible without broadband speeds. Furthermore technology is becoming mobile, the proliferation of smartphones and computing tablets is changing the way people are learning through a broad range of apps and opportunities to connect. This can only occur when the infrastructure is in place, something that is lacking in many rural areas including our own.

Thank you for the opportunity to address these issues,

Yours sincerely

Michael Sky