"Inquiry into the role and potential of the National Broadband Network"

Private Submission

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Spirit of Submission:

Submission is made in a personal capacity and does not represent the views of the NSW Department of Education. It has been made private, to avoid any possible confusion, and if found to be of value, steps be sort to make it content public.

Synopsis:

This submission provides evidence of the deep positive impact of the National Broadband Network in germinating community innovation (ten projects) and creating genuine nation building. It proposes further that the community networks are intelligently cultivated by Government attention.

Limitations:

There are key projects for which I have been unable to provide complete information. I would value the opportunity to present more fully and apologise to the project workers at this stage.

Dear committee members,

I briefly present about ten formative projects support or exploit the NBN role in Australia.

First Robotics - Broad band develops engineering education in remote communities

Cyber Dreaming - Broad band student emmersion in pre -1788 Australia

NBN / Photonics Education for Secondary Schools

Classroom Technology Pod exploiting Broad Band

Hiaku - community Music education from the Web

The Broadband Teacher - All teaching online

Remember Australia - Digital Narrative of veterans and older Australia collected by High School students

Digital Citizenship Outcome in Education - A fourth Taxonomy for the Syllabus

Zig bee Sensor Networks for the Classroom.

Quest Atlantis - online digital citizenship training world.

All these project are real with early stage trials, prototypes and in some cases early stage adoption. There a large number of product offering in Web 2.0 these, projects however have a level of community commitment and real people driving them.

My fundamental goodwill, industry, research and now class room experience has placed me variously as a mentor, supporter or developer of these projects. I inject persistent enthusiasm looking for new avenues and new directions. The indigenous Cyber Dreaming developed by Mr. Brett Leavy has encountered overwhelming bureaucratic obstacles and is now dormant. My experience trying to launch this in schools has lead me to realize that such initiatives really need to get onto the whiteboards of government where they can be cleanly analysed, valued and hopefully connect with goodwill coming from another framework.

I believe, besides the hardware that is rolling out across the nation, we need to recognise the need to incubate and develop ideas, and then build in the policy compliance at a later stage of project maturity. Similarly business models at early stages of projects often miss the ethos of a free secondary education that is invested in the country to enrich our people capital. Put frankly, we may not realize these project unless we can connect them to national investment philosophy

which is driving NBN and the idea of Nation Building.

Project 1	**FIRST Robotics**
Description	Teams of students build robots in a community setting with industry mentors, Students mentor remote communities with Broad Band. Principally sponsored by Macquarie Univesity
TOR	h) facilitating community and social benefits;
Status	2010 "Thunder Down Under" is the first Australian Team - schools program allows competition from 2500 km. 16 K to start at team, NSW Gov now provide matching funding Team "lets Goanna" starting in Western Sydney + Indigenous focus needs help.
Recommendation	Coordination and assistance from federal politicians to open doors
Contacts /Links	Thunder Down Under - Prof Michael Heimlich Lets' Goanna - Dr Peter Hill Video
Project 2	**NBN / Photonics for schools**
Description	4 year program : Year 7 Internet communication Year 8 Introduction to lasers Year 9 Laser control for communication Year 10 Network Simulators
Status	Photonic Simulator Developed - School Framework designed, no audience : Very early planning work for schools is being done by Dr Peter Hill (Penrith High) with Scientists in Schools, Prof Judith Dawes - Photonics Simulator. Thinking is that it will prime utilization and skills for NBN. Currently knocked back as not an official program.
TOR	c) improving the educational resources and training available for teachers and students
Recommendation	Decisively assess and role out nationally
Contacts	Photonic Simulator: Prof Judith Dawes (CUDOS) Syllabus integration : Dr Peter Hill (Penrith High)
Project 3	**Teacher's Technology Pod** - Children friendly technologies beyond IWB

Description	Gyroscopic Mouse + Blue tooth key board , 3D projection is part of the whats next after IWB. High speed document scanners, wireless camera,
TOR	c) improving the educational resources and training available for teachers and students;
Status	Demonstrator Pod built using know how from industry work stations. Ready for diffusion
Recommendation	Evaluate and focus on alignment of endpoint technology for broadband, understand classroom to community technology diffusion. Design classrooms with central floor or hanging power leads.
Contacts	Dr Peter Hill Penrith High School
Project 4	**Broad band enabled Educator**
Description	Broad Band lesson delivery space, every lesson digitally documented and shared - www.lessonlookup.com http://www.youtube.com/watch?v=ZZWr7NZOgdA
TOR	c) improving the educational resources and training available for teachers and students;
Status	Evolved in Classrooms with new laptops. Contains only teacher generated content.
Recommendation	Evaluate and support community uptake
Contacts	Dr Peter Hill Penrith High School
Project 5	**Remember Australia**
Description	School students interview and develop web presence
TOR	h) facilitating community and social benefits;
Status	planning stage very difficult to get in the door
Recommendation	Support by veteran affairs
Contacts	Mr Ian Mallet