

Connecting and collaborating in regional, rural and remote Western Australia



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ABSTRACT

Teachers working in regional, rural and remote areas of Western Australia often experience a strong sense of geographic and social isolation from peers, colleagues and appropriate support mechanisms due to the huge distances between towns and communities. The projects described here have focused on the use of technology to enhance both teacher and student learning; and assist with Indigenous education and teacher professional learning. Connecting and collaborating through technologies is emerging as a powerful tool for motivating and engaging both teachers and learners within schools. Coupled with the direction of the current Federal Government with the Digital Education Revolution and the Digital Regions initiatives, opportunities for better serving regional, rural and remote communities are discussed, as are some of the current issues and needs related to these schools in Western Australia. The scope of these projects has been such that three guiding principles have been implemented through contextual lenses of varying foci – at the level of an individual, a school, and a community.



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BACKGROUND

Many people in rural, regional and remote communities experience professional and social isolation from their city counterparts (Frid, Sparrow, Trinidad, Treagust, & McCrory, 2007; Trinidad, 2009). A national study by Lyons, Cooksey, Panizzon, Parnell & Pegg (2006) highlighted the link between retaining teachers in rural, regional and remote areas and the importance of being connected within a professional learning community. A series of recommendations were produced for the Federal Government through this national study conducted by the National Centre of Science, ICT and Mathematics Education for Rural and Regional Australia (SiMERR) and concluded “that education authorities, in partnership with schools and school communities, universities, and professional organisations meet the continuing needs of teachers in rural and regional areas through a range of strategies that ensure equitable access to ongoing quality professional learning” (Lyons et. al, 2006, p. xiii).

Access to more affordable and reliable broadband services can connect individuals and communities to overcome the sense of isolation. In light of the Federal Government’s ‘Digital Education Revolution’ and ‘Digital Regions’ initiatives the Federal Government has committed to establish a quality high speed national broadband network to ensure that educational and government services can be delivered and enhanced in rural, regional and remote areas in each of the Australia States and Territories.

Innovation is needed to help communities grow, adapt and prosper so that distance is no longer a barrier. Using super fast broadband has the ability to open up more opportunities for rural, regional and remote communities to connect across significant geographical locations. This is similar to the very successful international model known as the SuperNet in Alberta, Canada which was set up to connect urban to rural and regional areas to expand services and educational capabilities.

Successive Federal and State Governments have budgeted for broadband infrastructure. To this end, the current Federal Government committed in its 2008 budget \$270.7 million to improve broadband services and information accessibility, particularly in rural and regional areas (Commonwealth of Australia, 2009, p. 13) and in 2009 regional, rural and remote communities would realise the benefits of broadband through the new \$80 million *Rural and Regional National Broadband Network Initiative* included in the 2009-10 Budget (Department of Broadband, Communications and the Digital Economy, Senator Stephen Conroy, May 12th 2009). The *Digital Regions Initiative* was announced in 2009 as part of the Government’s initial response to the Regional Telecommunications Review. It will fund innovative digital education, health and emergency services projects in regional, rural and remote communities in partnership with state, territory and local governments.

With a commitment from both the State and Federal Government, funding has been provided to rural, regional and remote areas to ‘keep communities strong’. The Government initiatives for *Regional Development Australia (RDA)* and *Better Regions* were documented in the Budget papers presented by Gary Gray, Parliamentary Secretary for Regional Development and Northern Australia and Anthony Albanese, Minister for Transport, Regional Development and Local Government (Commonwealth of Australia, 2009). One such initiative was that it was important for investment in

human capital by strengthening regional high schools and post-secondary education facilities to limit the flow of rural children moving to the city for education.

The 2010-11 Federal Budget has budgeted a further \$3.8 billion into rural, regional and remote communities to be delivered through greater infrastructure investment and better targeted industry support. The \$60 million *Digital Regions Initiative* co-funds innovative digital enablement projects, one of which can 'improve and extend digital education services so that regional, rural and remote communities have the same access to educational opportunities as other Australians' (DBCDE, 2009). As the Federal Government rolls out the high speed broadband for all Australians through the National Broadband Network this initiative has the potential to connect individuals and communities through faster Internet connections. The *Digital Regions Initiative* takes a collaborative approach to improve the delivery of education, health and/or emergency services in regional, rural and remote communities from 2009-2013 (DBCDE, 2010).

Underpinning the use of these technologies to connect groups is the notion of community. People who share a passion for teaching and strive for excellence in their profession often rely on regular interaction with a network of similar people. Wenger (1988) refers to these groups as a 'community of practice'. These communities are integral for individual teachers; whom as part of a wider professional community engage in learning through social participation. Within this social participation network teachers can construct and continuously create their identity through sharing in these communities of practice (Wenger, 1998). The professional development of teachers can be tailored to meet their specific needs as they are ongoing and embedded in the context of the community.

With the current Australian Government's *Digital Education Revolution and National Broadband Network* initiatives, this is a vital area of advocacy and research with implications for rural, regional and remote communities. This paper describes two research projects that have involved investigating the use of technology to enhance both teacher and student learning; and assist with Indigenous education and teacher professional learning in rural, regional and remote Western Australia.

A project developing staff professional learning online

Research from Herrington and Herrington (2001) and Sharplin (2002) indicates that teaching in the country is more than a career or professional decision. Although some pedagogical concerns are evident in graduate teachers, all teachers identify the personal and social challenges such as establishing new social networks and 'fitting' into the community as being a potentially negative consequence of relocating. By bringing virtual and actual groups of people together for a common purpose this project was able to assist teachers and communities to use the technology to its fullest potential. This work has involved building a network of people who were able to move from eLearning to eLiving in rural, regional and remote communities (Stevens, 2009). Well connected communities using *Cybercells* or virtual and actual groups can function to improve education and community opportunities through the use of the Internet communication

tools and video conferencing (Trinidad, 2008; Broadley & Trinidad, 2009). In rural, regional and remote education one size does not fit all communities. The diverse range of schools and communities within these areas of Western Australia meant the contextual lens of the individual, school and community was applied to ensure that each was considered within their context. A key theme of this project has been the nurturing of teachers' professional learning so that teachers are supported in enhancing student learning outcomes.

By connecting teachers through a community network of seven schools they produced case study resources and materials online and professional development was provided for teachers within the cluster that included rural, regional and remote schools through the outcomes of the project (Trinidad & Broadley, 2008; Trinidad, 2009). This research illustrated that teacher professional development must be relevant to the local context, flexible and evolving, and provide 'people' professional support. The importance of professional support through groups of people both actual and virtually was necessary as teachers working in rural, regional and remote areas often experienced a strong sense of isolation from peers, colleagues and appropriate support mechanisms due to the huge distances between towns and communities. Findings indicate the importance of access to professional development, access to resources, the importance of leadership, and most importantly developing a community of practice to support social and academic needs. While many teachers believed their schools offered sufficient access to technology; parents of school age children considered the Community Resource Centre to be a successful initiative toward developing connections for the wider community.

The findings indicated in many communities there was a concerted effort by multiple schools within the regions to collaborate on many levels, including but not limited to professional development. A teacher that had resided in one community for 11 years recognised the importance of leadership in schools within her local remote area and the impact it had on community relationships:

We've tried in the past. It hasn't been particularly successful with the previous principal at their school, but that will change now as the new principal is very proactive. It just means it's the right kind of leadership happening (WT1).

The technologies available were considered to have started to alleviate the tyranny of distance often associated with living in regional and remote areas.

Well I think talking to other people about what you do is the biggest issue. With the internet these days it's probably less of an issue up here because you can use MSN and other programs. Isolation used to be our biggest thing, but we've got these things now it's not such a big issue (WTC1).

The use of *Cybercells* was found to facilitate an opportunity to provide quality academic and social support for those

who live in rural, regional and remote areas to help overcome the limitations of not having traditional access to professional learning. The benefits and opportunities were recognised by the participants who experienced the full potential of real-time web-based tools whilst engaged in professional learning. From participating in the *Cybercell* experience, data revealed participants were considering a number of potential uses for within their community:

We need to offer a lot of training and professional development to schools, childcare and playgroups in remote communities. This would be an excellent mode of delivery (WTC1).

I can see a lot of potential for developing these Cybercell networks. We have a doctor of frogs who is a world expert on dieback and works with the Conservation Council. They often use email to distribute word documents that need editing. They could do this real-time for online editing and discussion (WTC6).

Our cluster meetings would be great to run through this system. It would mean we could develop programs together rather than trying to do it alone (MTC5).

Very often people need to establish a vision through hands-on experience to see what is possible and to experience the enormous potential of *Cybercells*.

The research into the use of *Cybercells* in this project has illustrated that advances in technology allow for the possibility to lessen the isolation factor felt by many rural, regional and remote communities. There is potential for such web collaboration software like *Elluminate Live* which can link communities virtually to bring about significant change for people living in rural, regional and remote communities of Western Australia. Broadley's (2009, 2010) work is further mapping the issues for regional, rural and remote teachers in undertaking professional learning and the use of technology in this process.

A project developing social learning networks

Working with a national team of researchers examining the potential of Web2.0 technologies to develop innovative approaches in supporting educational endeavours and equity, was a prominent feature of the Social Computing project. This project ensured the inclusion of rural, regional and remote communities, in spite of the inherent communication and travel difficulties associated with these locations. Work has been presented at a national level on the issues Australia has with state/territory telecommunication systems and bilateral agreements (Reading, Fluck, Trinidad, Anderson & White, 2008).

Part of this project involved working with Indigenous students to connect them to the world outside their remote community. Using social media tools the students created blogs to improve their literacy skills and connect to students and teachers in other parts of Australia. It is important to recognise and value the need

for appropriate, effective teaching strategies in regional, rural and remote schools, and in particular for those schools with high Indigenous populations. Projects such as this aimed to improve the understanding and raise awareness of the specific issues and challenges facing Indigenous education in rural, regional and remote Western Australia. The research project was undertaken in the Kimberley region and promoted the use of a social computing tool to enhance Indigenous student's literacy and engagement with education while fostering a greater understanding and valuing of Indigenous culture, and increased self-esteem and cultural pride for these students (Smith, Biemmi Beurteaux & Trinidad, 2008). For the Indigenous students the experience was a very personal and enthusiastic one where they were connected by their task and the reward of receiving feedback from strangers reading their work:

Yeah, just doing our own blogging websites, and just putting the stuff in there, and people from uni such as Curtin University doing comments about our photos on our blogging sites. That was really cool I think. (S1).

and for the teachers involved in the project:

They're seeing the comments people have made and going "Oh wow, someone is looking at my blog and making comments". They're really enthused and happy about it (T2).

APPLYING THE CONTEXTUAL LENS

When reviewing the results of these two projects it could be seen that they each had three underlying needs that were initially identified in the National Survey Case Studies (Frid, Sparrow, Trinidad, Treagust & McCrory, 2007) titled *The Western Australian Experience*. These needs are that firstly the professional development is relevant to the local context; secondly the activities are flexible and evolving; and thirdly 'people' as a resource are a vital component of professional support. In addition, the scope of these three guiding principles have been implemented through contextual lenses of varying foci – at the level of an individual, a school, and a community. Key similarities were:

The Individual must feel connected to a group and a purpose. A vision of the potential of what the technology can achieve for the community is important and this must be driven by the individual's passion. In both projects the innovations were guided by an individual member's sense of belonging within their own community and their vision of what can be achieved using that technology to showcase the community to the wider world. It was clear that in both projects for the teachers, community members and students, 'connectedness' was essential to drive the activities that must be relevant in the local context. The individuals involved recognised the opportunities that could be further developed between groups and the technology used.

The School or the educational centre must provide adequate technology to connect individuals and groups. Professional development and learning must be relevant in the local context. In project one the seven schools connected through their project work and the common needs of their professional learning circumstances. By using the video

conferencing network between the schools, the teachers were able to connect to each other effortlessly and participate in professional learning activities relevant to their needs. In project two the teachers accessed professional learning through the researcher using a job-embedded model. This initiative was extremely successful due to learning in context of their school or the educational centre. The students were then able to successfully connect to the outside world via the *Social Computing project*. It is important to note that not all students have ready access to technology outside of the learning environment so therefore the students needed to attend the centre to access the technology or that experience.

The Community is important as this is what binds the group together and such a community can be both virtual and actual. The relationships within the community, through the people involved, allowed opportunities to be realised. By connecting to the outside world it allows the outside world to view the value in the community. By bringing the outside world into the community allows the people to feel a sense of pride and importance in their cultural context. That feedback is not available unless the technology can provide that medium of peer review and acknowledgement. For both projects a community of practice was developed between individuals and schools to achieve their aims for their community.

CONCLUSION

The positive direction of the current Federal Government with the *Digital Education Revolution* and the *Digital Regions* initiatives can assist in solving some of the current issues related to regional, rural and remote schools. It is acknowledged that teachers working in rural, regional and remote areas often experience a strong sense of geographic and social isolation from peers, colleagues. The two projects described here have focused on the use of the technology to enhance both teacher and student learning; assist with Indigenous education and teacher professional development. This has been achieved at three distinct levels of the individual, the school and the community in which they reside.

There is no doubt that technology is an invaluable means of connecting schools to people and resources in other locations, and is a vital aspect of learning for teachers and students in their communities. It is also emerging as a powerful tool for motivating and engaging both teachers and learners within schools. The promotion of enhanced and innovative use of technology to develop educational learning communities in rural, regional and remote areas has been a priority. Projects described here include a research investigation into the use of *Cybercells* to support the professional learning, raising awareness of the possibilities for groups of schools to work together, and investigating the impact of *Social Computing* on student learning conducted by a network of researchers from across Australia.

Technology can be used as a tool to assist in helping teacher's access professional development opportunities and feel a greater sense of connectedness. A substantial finding by Lyons et al. (2006) and supported by research undertaken by Broadley (2010) illustrates that teachers in rural, regional and remote areas indicate a significantly higher unmet need

for professional development opportunities such as mentoring, release time for professional development (PD) and collaboration with colleagues than teachers did elsewhere" (p.85). As political priorities drive the need for better broadband connections; telecommunications services are critical to the economic and social development of Australia. Due to the vastness of Western Australia, residents and the business community need access to effective and affordable advanced communications services and infrastructure. These are essential services for individuals, schools and communities for connectedness which can greatly affect the sustainability of such communities.

BIOGRAPHY

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