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Submission to the Standing Committee on Aboriginal and Torres Strait Islander Affairs relating to the Inquiry into language learning in Indigenous communities

Mr Shayne Neumann MP
Chair of the Standing Committee

Dear Sir,

This submission was prepared by the Centre for Indigenous Technology Information and Engineering Solutions (CITIES) based in Sydney. We would like to acknowledge the many Aboriginal and Torres Strait Islander people who now live in Sydney, and pay our respects to the elders both past and present, particularly to the custodians and owners of the Sydney basin, who have kept the knowledge and culture alive under very adverse conditions.

CITIES is an organisation set up by Aboriginal and non-Aboriginal people with IT skills and interests. Our aim is to develop resources for Aboriginal knowledge sharing and engagement with ICT. On our establishment as an association, the first brief we received from the community was to support language learning in Sydney, and now in coastal NSW. This work has also extended to developing Oral History sites in Indigenous language and English.

We envisage that by supplying resources online and on computer to support language and culture we will encourage Indigenous people to become engaged in this major area of employment and growth.

Yours sincerely,



Dr Cat Kutay
Public Officer
Signed on behalf of the Chairperson

Summary

This submission focuses on the valuable role that Information and Communication Technology can provide in language reclamation. We believe these are highly important tools due to the large separation between members of each language community.

Also the use of ICT to support work of such critical cultural value will enhance IT as an area of employment and engagement for Indigenous people.

We hope that the Federal Government will support a coordinated approach to initiatives in this area that is community based and reduces duplication of service development.

Our Submission is presented under the focus points as requested. A list of example ICT-based language resources is attached in Appendix A. We include supporting references in brackets, which are listed in Appendix B.

At the end of the document we have included a list of the enclosed recommendations in Appendix C.

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The benefits of giving attention and recognition to Indigenous languages

Indigenous languages were developed by a particular form of society in Australia, to express a specific type of world view or philosophy, social priorities, relation to land management, and method of knowledge sharing. These differ to the views held by most Western cultures.

While linguists have contributed greatly to the understanding of these languages and to their retention, the extent of these differences can only be analysed from within the language by the people, Indigenous and non-Indigenous, who speak the language.

We believe that as Indigenous languages were developed by a culture highly adapted to this environment, so some aspects of the culture they reflect have become integrated into modern Australian society as it finds its identity within this country.

Learning about the language; the culture it represents; the type of knowledge it shares; and the manner in which this is done; will help us understand ourselves. This will enable students, both at school and beyond, to analyse how the culture they live in is either similar or different to the existing culture of the First Australians, and enable them to understand and appreciate their own culture to a greater depth.

Battiste (2002) argues that integrating the voices and experiences of Indigenous people into mainstream education creates a balanced centre from which to analyse Western culture and learning. This supports an online teaching approach that uses storytelling and interactive gaming (see also Australian Learning and Teaching Council Indigenous Teaching Website). At present this material is in English, and requires the interpretation by modern speakers of knowledge previously passed down in Indigenous languages.

Attwood (1998) discusses the importance of stories for knowledge sharing in Indigenous cultures. Many of these knowledge repositories are stored as language recordings at AIATSIS. The protocols around knowledge sharing hinder the process of returning these to the communities who are related

to the speakers through language or kinship. While available in the AIATSIS audiovisual library, Indigenous people are denied access by distance and the lack of information about what is there.

IT provides an ideal avenue to provide communities with secure sharing of these resources. The main obstacle is the lack of appropriate security and software to enforce Indigenous protocol relating to knowledge sharing. These trust issues were discussed at the AIATSIS Symposium on Information Technologies and Indigenous Communities in July 2010.

For example many archival resources may include the sound and footage of deceased persons. It may not be appropriate to access these for some years after the death of the contributor. This can be enforced through software using XML wrappers to store information on the resource and including transcription if this is made (Kutay & Ho, 2011).

A further concern is the lack of access to the Internet and computers in many communities. For example in Bundjalung country, the communities of Baryugil and Malabugilmah near Grafton have a computer in the school, but little other access. The National Broadband initiative will not reach many Indigenous communities. Internet access will remain as satellite links, which is effectively a one-way mode of knowledge dissemination.

Finally on this point we note that the present Indigenous Studies curriculum at school level deals largely with the history and human rights of Indigenous knowledge holders, yet does not enable children to understand this knowledge. Language teaching provides an approach to teaching this knowledge in a non-threatening and informative manner.

We therefore recommend:

1. Funding the development and distribution of software that supports the acknowledgement of IP of Indigenous knowledge and stories, and enforces Indigenous protocols online to facilitate the sharing of knowledge through the Internet.
2. Establish which communities will not have full broadband access and establish local centres where Indigenous

people have Internet access to hear and share language material.

3. Support the integration of Language teaching in schools as a means to inform students on Indigenous Knowledge.

The contribution of Indigenous languages to Closing the Gap and strengthening Indigenous identity and culture

Rosenthal and Jacobson (1992) exposed the Pygmalion effect that expectations have on learning. Through many errors committed by Western misunderstanding of the culture of the First Australians, the situation for Indigenous people has been very difficult. This has resulted in low performance in many areas: education; employment; health; and this has in turn created expectations of deficit.

The deficit model used in government dealings with Indigenous people can be reversed if the unique and highly valuable aspects of the culture are highlighted, such as: high visual literacy; story telling as knowledge sharing; experiential learning; and respect for and learning from elders. Valuing the languages in which these cultural aspects are expressed and practiced supports this process.

Teaching Indigenous language to Indigenous and non-Indigenous students, as in the teaching of any language, involves discussion of the culture of the language as an important part of the teaching.

However this process has to be carried out both within and without the education system at all levels and has to involve Indigenous people as the IP owners and knowledge holders.

The existing model of service provision provided by the Aboriginal Education Consultative Group (AECG) can be emulated in the provision of language learning services. This is the model being proposed by the NSW AECG to develop the NSW Language Centre under state funding (NSW Language Centre).

This structure of the AECG is based on a three tier system where local community members meet to establish the

priorities in their area, and language. They elect from their members their representatives on a regional body who negotiate with other language groups, or groups from the same language in different locations. The regional groups then elect state representatives. A fourth tier would provide a national representation, which would link with, or replace the Federation of Aboriginal & Torres Strait Islander Languages & Culture (FATSILC).

The sharing of knowledge by and between communities is vital for the coordinated revitalisation of knowledge (Gorjestani, 2005) including languages. Languages that are strong can assist neighboring languages that are less resourced, either in terms of archival material, speakers or linguistic support.

It is also important that these groups retain the knowledge IP over all resources that are developed for their language. As IT resources can and should be developed across languages, the local groups or regional groups should have IP control over the particular implementation of this resource using the database of their language.

This can be achieved by allowing local and regional control over language programmes and the hire of the necessary skilled linguists, teachers and developers, following the model developed by the Aboriginal Medical Services and the Aboriginal Legal Services.

The present model of regional language centres provides a working example of this process. These centres would be bolstered by the local language groups and could provide the regional support where they exist, or be developed where they do not yet exist. These centres require recurrent funding support to ensure security of their work force trained in linguistics and culture.

Due to both the scarcity of speakers in many languages, and the highly dislocated nature of communities, who have often been forcibly removed from their land, there is a need for a strong communication link to support language sharing. The Internet and mobile phone network can provide such a tool. In particular Indigenous Australians are uploading audiovisual examples of language to the web to provide lessons in their language (see list of example sites in Appendix A).

These language words and example sentences are being used to create online, computer and mobile-based games. It is important that this is done in a coordinated manner, to make maximum use of the IT and language teaching skills of different groups, and to share these between language groups at a similar stage of revival or reclamation.

Also there are many issues that exist as cultural variations within Indigenous Australian cultures and the web provides great opportunity to share tools for course development in this area. This will draw on Indigenous knowledge from different traditions (Agrawal, 2011) and explore different teaching and learning paradigms, for example seeing knowledge as performance and stored data as artefacts of prior knowledge production episodes (Christie 2005).

IT resources can be enhanced to support Indigenous modes of knowledge sharing using online repositories of archival and modern language speakers, games and VOIP recordings. Much of these tools are available free and opensource, available to be re-designed for new applications. For example:

1. Web-2.0 sites allow users to upload and contribute material to the collection,
2. Mobile phones using sms, mms, browsers and apps allow the two-way sharing of language material,
3. Databases provide a simple word-by-word translation tool and repository of knowledge on which games can be developed,
4. Access protocols and XML data provide security of access and acknowledgement of IP.

The increasing global need to share tacit knowledge, for example to support learning within mobile workforces such as the military, has raised awareness of the value of Indigenous knowledge sharing processes (Kutay and Ho 2009).

Supporting the integration of such skills in developing knowledge solutions will in turn provide Indigenous people with a vision of how their knowledge is important within mainstream society. In particular, the present use of Indigenous knowledge in environmental management, such as the complicated and risky process of fire burning now carried out by the National

Parks and Wildlife Service in some areas, should be more publically acknowledged.

We therefore recommend:

4. Develop local and regional groups using the participatory model of the AECG to support language revitalisation and to provide the human resources to support teaching in community, schools, TAFE and University.
5. Language groups retain IP over all resources that they developed for their language and have control over access to these resources and how and where their language is taught.
6. Support the public sharing of IT resources across many language groups, and promote the funding of flexible and free opensource software for language sharing.
7. Promote greater public awareness of the use of Indigenous knowledge within Western institutions, for example use of fire-burning by the NPWS and research into the further use of established Indigenous practices to develop novel solutions in the areas of knowledge sharing and learning.

The potential benefits of including Indigenous languages in early education

Indigenous languages are important across all areas of education. Unless the older people re-learn and are confident in their language, the children will not live in a language-speaking environment to enable them to have the benefit of the language as a knowledge-sharing tool.

Also it is important that the knowledge expressed within the language is not taught in a segmented manner, but is allowed to be present as it would traditionally have been taught, starting to simple stories and building the knowledge within this framework throughout the years of school and tertiary education.

Nakata (2002) describes the contested space between the two knowledge systems as the cultural interface where issues are not clearly black or white, Indigenous or Western. In this space he sees many aspects, including the knowledge technologies,

which condition how we all come to look at the world and the knowledge we practice in our daily lives.

In introducing Indigenous knowledge into the academy, Nakata provides issues to consider:

1. Indigenous knowledge should not be conceptualised simply in opposition to the standpoint of scientific paradigms.
2. Indigenous knowledge should be documented in ways that does not disembodify it from the people who are its agents or this dislocates it from its locale, and separates it from the social institutions that uphold and reinforce its practice.
3. Avoid the disintegrations and transformations that occur when Indigenous Knowledge is redistributed across Western categories of classification, when it is managed in databases via technologies that have been developed in ways that suit the hierarchies, linearity, abstraction and objectification of Western knowledge (Nakata, 2007) , p.9.

To convey Indigenous knowledge to non-Indigenous people would be invalid without the contributions of the Indigenous people 'translating' their experiences into the new context (Ramsey and Walker, 2010). In particular, we need to reverse the present 'systemic undervaluing of local knowledge and Aboriginal culture, a deeply ingrained unwillingness to "see" more sophisticated Aboriginal knowledge and processes' (Yunkaporta, 2009, p.105).

Indigenous narratives form an effective way to teach other students (Egan, 1998; Blakesley, 2010; Andrews, 2010) and respect traditional storytelling methods (Bradley, 2010). This is a way of valuing the Indigenous students as experts in knowledge and so teaching others. It also has the benefit of validating their knowledge and identity (Willmot, 2010; Mooney & Craven, 2006).

The inclusion of Indigenous practitioners at all levels of language revitalisation is vital for the raising of expectations and self-appreciation of community members.

We therefore recommend:

8. Community language groups be encouraged to provide support for their members in reclaiming their language

and teaching within the education system.

9. Develop national online network of language learning software and software providers working in the area (for example using sites like Indigenet) to provide access for community groups to the range of options available.
10. Community language groups be trained to use IT resources to share their language and its specific features, as these are developed nationally, regionally or locally.

Measures to improve education outcomes in those Indigenous communities where English is a second language

In all Indigenous communities including Sydney, Aboriginal English or another language is the first language, rather than English.

The structure of these languages is focused around storytelling. Also Indigenous languages use song and performance to emphasis the imagery of the subject matter through sound (Magowan, 2001). The role of traditional story telling in knowledge sharing and knowledge retention is highly advanced. This traditional method of learning can be developed to extend to the sharing of knowledge about Western concepts and knowledge systems within the community.

This will involve highly experiential learning environments, where trial and error, and correction by the educator, is not encouraged (Kutay & Mundine, 2011). IT development in the area of gaming and adaptive e-learning are supportive of these modes of learning, and allow resources developed in one community to be edited and re-used in others.

In particular the highly audio-visual nature of traditional knowledge highlights the need to provide recording and playback of resources for educational sharing between Indigenous communities.

Yet present national initiatives to improve internet, mobile and media communication access, such as digital broadcasting, are set to downgrade the services available to remote (and some regional) Indigenous communities.

We therefore recommend:

11. Encourage the development of programmes by Indigenous specialist from communities describing the application of Western processes and knowledge within their community.
12. Support for the production and distribution of material by Indigenous media workers across the country including:
 - a. Provision of digital channels for: National Indigenous Television (NITV); Indigenous Community Television (ICTV); and media organisations affiliated with the Indigenous Remote Communications Association (IRCA); on the mainstream digital and national broadband networks; and
 - b. Promotion of the resources already selected for public viewing on Indigitube.

The educational and vocational benefits of ensuring English language competency amongst Indigenous communities

Indigenous people are capable of learning many languages to communicate with the various groups with whom they negotiate and trade. At present in remote communities there exists little of this communication between the Indigenous residents and the Western administration, there is little trade and virtually no negotiation.

If Indigenous people were presented with a real prospect of employment through English that incorporated use of Indigenous knowledge and priorities, there would be reason to learn this language, and to become highly competent in communicating in English. There is little such motivation at present.

Similarly there is little motivation to share knowledge, either face-to-face or online, with non-Indigenous people. This is due to the long experience Indigenous people have of their knowledge being taken and used with misunderstanding, or for other people's gain.

The use of IT to share resources, maybe initially only between communities, provides an avenue to revisit knowledge sharing,

while enforcing protocols through software, as discussed above. Also online and multimedia services are presently being used by people in remote areas to share material, some of which has gained international acclaim for the creators (see Chooky Dancers) and much of which is in English.

The ongoing viability of employment and education in remote communities will increasingly depend on broadband access under the National Broadband Initiative. However it seems many Indigenous communities will not be included.

Where optical fibre is an option, the use of local labour with trained supervision of projects will increase engagement by the community in the technology and hence linkage into, and use of, the network. Alternative options such as the CSIRO Ngara microwave link being developed on top of existing analogue infrastructure should be considered.

In particular the high use of mobile phones in remote communities, including those without network access where media is shared via Bluetooth, should be acknowledged as an avenue for education in English.

We believe that through such avenues, the need for English skills will arise more effectively than by requiring communities to engage in an abstract process of language learning without a context in which to engage with the language.

We therefore recommend:

13. The aim be to engage Indigenous people in processes that require English rather than. English competency be seen as the priority
14. Other forms of communication, such as audio and visual material already produced in English as well as other languages, be promoted through Indigenous media organisations and given channel access to national networks
15. Initiative such as the National Broadband put a priority on including Indigenous knowledge holders on the national network.
16. Extend existing fibre networks (with ADSL-2 or higher) in

all remote communities where possible, and roll out to other communities new wireless technologies such as those being developed by CSIRO to provide optimal coverage of terrestrial broadband services.

17. Support the inclusion of rural and remote communities within the 3G network wherever possible, as a high priority.

Measures to improve Indigenous language interpreting and translating services

We do not deal with interpreting and translation services as we mainly work in Sydney and the coastal areas, where Aboriginal English is often the first language. While translation is not provided in this language, there is ongoing concern about the lack of understanding in communication across culture.

For example, particular kinship responsibilities are expressed by the use of 'mother' for all one's biological mother's sisters, plus their cousins. If an Indigenous child is appearing in court a mother or father will accompany them. In English this may be their uncle or aunt or cousin once removed. This has led in the past to children being removed from their parents, as they apparently were not taking responsibility for them within the legal system.

There is a need for a translation service that encompasses culture, as conveyed through language. This process can be enhanced by Indigenous language teaching to all Australians.

We therefore recommend:

18. That all Australian children be encouraged to undertake some Indigenous language learning. That this incorporate informed discussion to cultural protocols and values to ensure improved communication across cultural groups.

The effectiveness of current maintenance and revitalisation programs for Indigenous languages, and

The present MILR process has many limitations. While a large amount of funding is provided, this does not match the need

from years of neglect, nor is the distribution of finances able to acknowledge the situation in communities.

Communities need to be funded to set up their own language groups to control the process and can feed back into the funding provision. For instance at present:

1. Some languages receive no funding, others receive much,
2. If a programme is not working, it cant take up to a year for the MILR staff to become aware of this,
3. There are contradictions between the need to gain approval from community members to share archival material from AIATSIS, and the MILR concern that a project is approved by the community before they will fund it. The travel to gain approval is a valid expense for a project.
4. IT resources funded for one language are not made in a way that can be re-used by another language, and often the IP of the company which makes them prevents any such attempts,
5. Submissions that are not approved have to wait another year to re-apply, often over small concerns or misunderstandings.

The issue of language, what is correct and what can be said, is highly political. We must allow the language communities, whether fluent speakers or not, to control the reclamation and support of their language. While we envisage this will be difficult, it will not be as difficult as trying to administer the service from outside the community.

We therefore recommend:

19. Community control of the language process will reduce the conflict between community language reclamation requirements and government funding requirements.
20. Community language groups provide through regional and national structures the coordination between and across languages that cannot be provided by those outside this area of expertise.

The effectiveness of the Commonwealth Government Indigenous languages policy in delivering its objectives and relevant policies of other Australian governments.

This process has been too dispersed and little sharing of resources has been created. We believe much of this problem relates to the following aspects:

1. Indigenous Australian people do not have control of the program, so there is much infighting to gain the control of funds being distributed;
2. Non-Indigenous people involved in government and other service organisations are nervous of making mistakes, so tend to avoid doing anything;
3. The replication of programmes that are successful in one community, in another community, requires a greater understand of the two communities involved than an outsider can achieve

We believe the providing direction for knowledge sharing requires a higher level of understanding of the knowledge than exists at present in the broader Australian community, due to years of undervaluing of this knowledge, and the resultant hesitance of Indigenous people in sharing this knowledge.

At the same time we acknowledge that the years of disruption in Indigenous communication across communities has prevented this form of knowledge sharing continuing during the recent historical period.

We need to support the process of communities coming together to discuss their differences and resolve conflicts using their own structures and protocols.

We therefore recommend:

21. That non-Indigenous people not be required to make the decision on how and where language programmes are taught and run
22. That Indigenous groups be supported to negotiate the politics of this work
23. That these groups be funded to link at a regional and

national level to share knowledge and skills

24. That these groups be funded to hire non-Indigenous skilled people to support their work
25. That national coordination to reduce replication and share resources be provided through online networks and national meetings of representatives of these local and regional language groups.

Appendix A Some Language sharing sites:

<http://www.dharug.dalang.com.au/> (Dharug language and history)

<http://www.dharawal.dalang.com.au/> (Dharawal language archive tapes from AIATSIS)

<http://www.salc.org.au/> (Wiradjuri/Gumbaingirr resources and games)

<http://www.cities.org.au/OralHistory/> (Bundjalung language archive tapes form AIATSIS)

<http://learnline.cdu.edu.au/yolngustudies/study.htm> (Charles Darwin University Language course online)

<http://www.ngapartji.org/> (Pitjantjatjara course online)

<http://www.sharingculture.com.au/> (Language for children and community)

<http://www.yuwaalaraay.org/> (Gumilaraay Yuwaalaray in schools)

<http://www.firstvoices.com/> (Canadian Web-2.0 resource soon to be implemented in Australia)

<http://www.irititja.com/> (online archive being developed)

<http://aboriginallanguageteachers.ning.com/> (School teachers sharing resources)

<http://www.williamdawes.org/> (text archives online)

Also computer based language sharing tools have been developed mostly for linguist's use, but also for community, including:

<http://www.miromaa.com.au/> (Microsoft Access language database tool)

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Appendix C List of Recommendations

1. Funding the development and distribution of software that supports the acknowledgement of IP of Indigenous knowledge and stories, and enforces Indigenous protocols online to facilitate the sharing of knowledge through the Internet.
2. Establish which communities will not have full broadband access and establish local centres where Indigenous people have Internet access to hear and share language material.
3. Support the integration of Language teaching in schools as a means to inform students on Indigenous Knowledge.
4. Develop local and regional groups using the participatory model of the AECG to support language revitalisation and to provide the human resources to support teaching in community, schools, TAFE and University.
5. Language groups retain IP over all resources that they developed for their language and have control over access to these resources and how and where their language is taught.
6. Support the public sharing of IT resources across many language groups, and promote the funding of flexible and free opensource software for language sharing.
7. Promote greater public awareness of the use of Indigenous knowledge within Western institutions, for example use of fire-burning by the NPWS and support research into the further use of established Indigenous practices to develop novel solutions in the areas of knowledge sharing and learning.
8. Community language groups be encouraged to provide support for their members in reclaiming their language and teaching within the education system.
9. Develop national online network (for example on Indigenet) of language learning software and software providers working in the area to provide access for community groups to the range of options available.
10. Community language groups be trained to use IT

resources to share their language and its specific features, as these are developed nationally, regionally or locally.

11. Encourage the development of programmes by Indigenous specialist from communities describing the application of Western processes and knowledge within their community.
12. Support for the production and distribution of material by Indigenous media workers across the country including:
 - a. Provision of digital channels for: National Indigenous Television (NITV); Indigenous Community Television (ICTV); and media organisations affiliated with the Indigenous Remote Communications Association (IRCA); on the mainstream digital and national broadband networks; and
 - b. Promotion of the resources already selected for public viewing on Indigitube.
13. The aim be to engage Indigenous people in processes that require English rather than. English competency be seen as the priority
14. Other forms of communication, such as audio and visual material already produced in English as well as other languages, be promoted through Indigenous media organisations and given channel access to national networks
15. Initiative such as the National Broadband put a priority on including Indigenous knowledge holders on the national network.
16. Extend existing fibre networks (with ADSL-2 or higher) in all remote communities where possible, and roll out to other communities new wireless technologies such as those being developed by CSIRO to provide optimal coverage of terrestrial broadband services.
17. Support the inclusion of rural and remote communities within the 3G network wherever possible, as a high priority.
18. That all Australian children be encouraged to undertake some Indigenous language learning. That this incorporate informed discussion to cultural protocols and values to

ensure improved communication across cultural groups.

19. Community control of the language process will reduce the conflict between community language reclamation requirements and government funding requirements.
20. Community language groups provide through regional and national structures the coordination between and across languages that cannot be provided by those outside this area of expertise.
21. That non-Indigenous people not be required to make the decision on how and where language programmes are taught and run
22. That Indigenous groups be supported to negotiate the politics of this work
23. That these groups be funded to link at a regional and national level to share knowledge and skills
24. That these groups be funded to hire non-Indigenous skilled people to support their work
25. That national coordination to reduce replication and share resources be provided through online networks and national meetings of representatives of these local and regional language groups.

For further information please contact our Public Officer

Dr Cat Kutay

