



PwC's Indigenous Consulting

National Indigenous Australians Agency
via free text submission

12 November 2021

Submission: Indigenous Digital Inclusion Plan (IDIP) discussion paper

PwC Australia (PwC) and PwC's Indigenous Consulting (PIC) welcomes the opportunity to provide our observations and recommendations with respect to the Indigenous Digital Inclusion Plan (IDIP) developed by the National Indigenous Australians Agency, with support from the Department of Infrastructure, Transport, Regional Development and Communications.

PwC is one of Australia's leading professional services firms, and PIC is a separate member firm in the PwC global network which maintains an Indigenous majority owned, managed and staffed operation. The Indigenous Co-Owners have a 51% share in PIC and PwC Australia owns the remaining 49%. PIC's governance includes an independent Indigenous Chair and a majority Indigenous Board of Management. Together, PwC and PIC have an Elevate Reconciliation Action Plan (RAP) endorsed by Reconciliation Australia.

In our experience, we see that there is strong interest in technology within Aboriginal and Torres Strait Islander communities, particularly where the use of technology is seen as an enabler of value for families and communities. With the right focus, resources, policy settings and cross-sector collaboration, we believe First Nations peoples can benefit significantly from increased digital inclusion. In fact, technology offers (perhaps unique) potential to provide opportunities to First Nations peoples across urban, rural and possibly even remote Australia.

We look forward to seeing and engaging in the outcomes of this consultation.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Gavin Brown'.

Gavin Brown
Co-CEO PwC Indigenous Consulting

A handwritten signature in black ink, appearing to read 'Tom Seymour'.

Tom Seymour
CEO PwC Australia

Digital inclusion from the human perspective

Stories of digital inclusion: examples of the context for Indigenous Australians

Acknowledgement

PwC and PIC acknowledge the Aboriginal and Torres Strait Islander peoples of the many traditional lands and language groups across Australia. We honour the wisdom, adaptation and ingenuity of Aboriginal and Torres Strait Islander peoples who have come before us.

Executive summary

In the digital age, people's social and economic prospects are greatly diminished when they are prevented from fully accessing technology. Aboriginal and Torres Strait Islander peoples face barriers to digital inclusion due to challenges around access and affordability.

On the flipside, a dramatic increase in digital inclusion for Aboriginal and Torres Strait Islander people could deliver tangible opportunities for First Nations people in areas such as education, health, training and employment. As the refreshed *Closing the Gap* framework¹ recognises, technology can be a powerful enabler of sustainable careers and job prospects for Aboriginal and Torres Strait Islander people.

In this submission by PwC's Indigenous Consulting business (PIC) and PwC Australia, we have been informed by our work around the country with Aboriginal and Torres Strait Islander communities and government agencies. We have also drawn upon research and community engagement with which we are familiar.

Our overarching observation: In our work around the country, particularly in co-design with communities and government, **Indigenous peoples demonstrate a clear aptitude for – and strong interest in – technology**, especially where the use of technology enables them to do something of value for their families and communities.

In our view, digital and technology options present substantial opportunities for 'leapfrog' initiatives that provide accelerated employment pathways into jobs of the future. Later in this submission, we outline one such initiative - the Indigenous Tech Academy - which PIC is establishing with PwC, a CRM Platform and the Revolent Group.

With the right focus, resources, policy settings and cross-sector collaboration, we believe First Nations peoples can benefit significantly from increased digital inclusion. In fact, technology offers (perhaps unique) potential to provide opportunities to First Nations peoples across urban, rural and possibly even remote Australia.

1 Access

Access challenges including affordability, functionality and speed of the internet present genuine risks for Aboriginal and Torres Strait Islander people.

1.1 Barriers to digital access for Indigenous Australians

Aboriginal and Torres Strait Islander communities are diverse in their culture and customs as well as their exposure to western influences. This diversity is reflected in these communities' development, infrastructure and resource distribution. While the majority (79%) of Aboriginal and Torres Strait Islanders live in urban areas, they represent a significant proportion of Australians living in remote and very remote areas.² Digital access is often determined by socioeconomic differences such as income, education and geography. In all these spheres, Aboriginal and Torres Strait Islander peoples are significantly marginalised.

The technological needs of Aboriginal and Torres Strait Islander people living in rural and remote Australia are particularly unique given the lack of infrastructure to support digital technology services and products. Barriers to accessing digital technology are sizable. The digital divide between regions reflects the often patchy, unreliable or entirely absent internet and mobile coverage in many rural and remote areas.³

1.1.1 Internet

The University of Canberra's Professor Peter Radoll points out that barriers to accessing and retaining internet are a uniquely Aboriginal problem, with very remote communities experiencing a decrease in internet retention of up to 40% between 2006 and 2011.⁶ 'Income' and 'Access to employment and education' were the key drivers of the drop in internet retention.⁶ Without internet access, Aboriginal and Torres Strait Islanders miss the benefits of online resources in essential areas such as health, employment and education.

1.1.2 Mobile phone usage

The relatively high prevalence of mobile-only use among Aboriginal and Torres Strait Islanders presents both positives and barriers to digital inclusion.⁴ Challenges include:

- **Affordability:** Mobile data costs are generally higher than fixed broadband data costs.
- **Functionality:** Compared to laptop or desktop computers, mobile phones offer poorer functionality for many online education courses
- **Speed:** Mobile phone internet is generally slower than a laptop connected to Wi-Fi.⁴

For government, the priority should therefore be to improve technology infrastructure (mobile phone technology should be treated as the contingency or backup alternative).

1.1.3 Risks

Limited internet access presents genuine risks for Aboriginal and Torres Strait Islander people – especially given the over-reliance on mobile phones. Mobiles are easily lost or stolen, and vulnerable to hacking. Such risks can prompt unsafe behaviours and conflict between families and within communities.

Research indicates that Elders experience issues due to the increased use of mobile phones and internet in the community. Elders point to specific examples of Aboriginal and Torres Strait Islander youth using social media in harmful ways (e.g. threatening suicide, enabling substance abuse).⁶ Social media platforms and internet service providers do not have procedures to prevent this harmful behaviour. So, while increased technology access offers opportunities to Aboriginal and Torres Strait Islander youth, it may also cause harm that would otherwise be avoided without internet access.

Aboriginal and Torres Strait Islander communities have their own ways of dealing with conflict, however the risks of technology and social media platforms are forcing communities to adapt. For example, some communities have turned off their Wi-Fi to minimise cyberbullying.⁷ Age-appropriate guidance surrounding internet use is required to educate Aboriginal and Torres Strait Islander youth about the dangers and consequences of cyberbullying.

1.1.4 Disability

Aboriginal and Torres Strait Islander people living with a disability face a unique combination of discrimination. The First Peoples Disability Network (FPDN) explains this as an intersection of discrimination related to identity as an Aboriginal and Torres Strait Islander person and having a disability.⁸

Alarming, the FPDN found that this intersectional inequality is acute across all the support services accessed by Aboriginal and Torres Strait Islander people with a disability.⁸ Markers of digital exclusion include disability, regional/remote location, mobile-only services, low income, transport, employment and education. All these markers indicate that technology has not yet been effectively leveraged to support the needs of Aboriginal and Torres Strait Islander people with disability.⁸

New technologies can assist people with disabilities and enable them to contribute more in the workplace.⁹ However, lower levels of technology access and participation have serious implications for Aboriginal and Torres Strait Islander people living with a disability. The FPDN recommends:

- A model for inclusive policy and practice that aims to ensure Aboriginal and Torres Strait Islander people with a disability are included in all areas of society
- Increased access to advanced technology for people with a disability, which will contribute to a more inclusive society.

1.2 Initiatives to address barriers to access

To respond to access barriers, the existing technology infrastructure of rural and remote Aboriginal and Torres Strait Islander communities should be mapped and tailored to the individual needs of each community. When mapping these needs, it is essential to collaborate with each community's leaders to understand local aspirations for new technologies.

A growing number of Aboriginal and Torres Strait Islander communities are leading the charge to provide better internet access and connection to their region through shared local internet access points, provided by government or other sources. These communities are establishing community knowledge centres or hubs to provide safe communal spaces for people to access local and cultural knowledge through books, the internet, and other forms of digital technology. Of course, Indigenous Digital Sovereignty is essential for any technological uses relating to community or cultural information.

The Wujal Wujal Aboriginal Shire in far north Queensland has secured government funding and established its own Wi-Fi mesh net. Multiple Wi-Fi points in the community give people internet access that is faster, affordable and more efficient, thus reducing some of the socio-economic barriers we have described above.¹¹

There are also examples of governments introducing free public Wi-Fi to promote internet access. The Northern Territory Office of Aboriginal Affairs approved Easyweb to deploy free public Wi-Fi systems in four Aboriginal communities. The project aimed to address some of the remote communications challenges for the people living in (and visiting) the communities.¹² This allowed community members to switch from paid-for 3G mobile networks to free community Wi-Fi. It also enhanced tourist experiences, allowing connection to people on a national and global scale.

Recommendations for government

- Prioritise access and retention of internet connection
- Consider types of devices available to Aboriginal and Torres Strait Islander people and the shared nature of devices within communities.
- Consider the potential risks and safety issues of technology
- Learn from the success of community-led initiatives
- Map existing infrastructure technology within rural and remote Aboriginal and Torres Strait Islander communities and tailor solutions to the individual needs of each community
- To understand each community's aspirations for new technologies, engage with and listen to local community leaders.

2 Affordability

Affordability issues, such as availability of reliable internet service and access to devices, can be barriers to Aboriginal and Torres Strait Islander peoples achieving positive education, employment, and health and wellbeing outcomes.

2.1 Service cost vs. location

A Northern Territory study by the ARC Centre of Excellence for Creative Industries and Innovation¹⁹ found that less than 6% of Indigenous residents in remote communities had a home computer or laptop. Of the residents who had used a computer at some point, one third had never been online.¹⁷

Sustaining telephone contact between service providers and these communities remains difficult because:

- Home phones are less prevalent
- Only about half the population has mobile phone coverage
- There are limited shared public telephones in the locality.¹⁷

These availability issues compound other accessibility challenges (e.g. affordability, technical literacy, limited use of the English language, etc).¹⁷ This is demonstrated in communities with satellite broadband; the ARC Centre's study found that despite this availability, adoption of home internet remained low.¹⁷

Previous studies on consumers experiencing financial hardship found that – irrespective of availability – telecommunications are not universally accessible. But in the ARC Centre’s study, mobile phone ownership was widespread with nearly half the participants using it as their only form of telecommunication. The mobile phone was seen by the community as the most affordable (and therefore preferable) home phone, with the added advantage of lowering barriers to internet participation.¹⁷

Telco construction and maintenance costs are higher in rural and remote communities than urban communities. Therefore, reliable, fixed-line services (e.g. NBN, ADSL) remain out of reach for many remote Aboriginal and Torres Strait Islander communities.

2.2 Education and employment

People with higher levels of education and literacy enjoy higher rates of employment.¹⁷ Conversely, low levels of language literacy and low socioeconomic status go hand-in-hand. While nearly half Australia’s population faces affordability issues with information communication technology (ICT),¹⁷ this is exacerbated in many Aboriginal and Torres Strait Islander communities by lower-than-average school attendance, lower health outcomes, remote location, and patchy network service.

2.3 One device, many people

Device use in remote communities differs from use in urban areas. For example, in remote communities mobile devices are often shared. In a recent PIC project, this presented a challenge for online banking and government services, where the service may require a single sign-on via app through a single device. Due to a miscommunication, our client described this as ‘phone banking’. People in the community interpreted ‘phone banking’ as calling up to talk with someone at a bank’s call centre. Whereas the client was referring to banking via smartphone app or browser.

In remote communities, everybody in a single household may depend on a single device for access to the internet, including vital services. (For example, a single low-income household may accommodate large family structures and communal living; combined with the sharing nature within their culture). Not only does this limit access to online services, but it may also pose privacy risks for individuals accessing online banking, government services (e.g. myGov), emails or health services.

Recommendations for government

- Pilot new technologies and business models that can scale broadband and connectivity in a low-cost environment
- Explore shared models of device, connectivity and software that can enable greater access and lower the affordability barriers for communities, households and individuals
- To facilitate access to government services, consider building the capability of community members by training and supporting a paid role of digital community navigators who can support community members to navigate digital government and consumer services. This will enable collective uplift of digital literacy and skills as well as providing economic opportunities for community members to share their digital knowledge.

3 Digital literacy

Limited digital literacy/ability, and developments in technology, can be barriers to Aboriginal and Torres Strait Islander peoples achieving positive education, employment, and health and wellbeing outcomes. (We define 'digital ability' as a mix of general and specialised skills used to interact with digital tools and platforms for a range of purposes.)

3.1 Digital engagement accelerated during the pandemic

As an Indigenous consulting business, engaging communities in a respectful and culturally safe way is a core part of our work. Whether conducting one-on-one interviews, in-person focus groups or online virtual workshops, we frame the purpose of each engagement on creating stronger connections with our communities.

During the COVID-19 pandemic, we have expanded how we engage with communities (and communities have also interacted together in new ways). We've created a sophisticated approach to planning, delivering and engaging with Aboriginal and Torres Strait Islander communities that allows all participants to fully contribute in a meaningful way.

In the organisational governance setting, the current COVID-19 lockdowns prevented face-to-face meetings for organisations and boards. The Office of Registrar of Indigenous Corporations (ORIC) recently changed regulations to enable corporations to conduct virtual Annual General Meetings and board meetings virtually. ORIC is also currently exploring a pilot program for online decision-making that not only streamlines board meetings and processes for organisations, but also builds awareness and digital skills among community members.

3.2 Young Aboriginal and Torres Strait Islanders

Technology presents an opportunity for improved education outcomes and new career opportunities for young Aboriginal and Torres Strait Islander people.

Classrooms are already changing, with the advent of electronic whiteboards and a range of online learning resources designed to increase literacy and pre-literacy among Aboriginal and Torres Strait Islander children. Some tools and resources have been designed by the community for the community – incorporating first languages matched to learning curricula.

And this could be just the start. In years to come, Aboriginal and Torres Strait Islanders could be instrumental in contributing to the 'Fourth Industrial Revolution' (4IR). Future technology will be shaped by young, digitally-literate people who understand current and potential uses of new technologies. The population demographics of Aboriginal and Torres Strait Islander people is younger (median age: 23 years old¹³) than the non-Indigenous population. For young Aboriginal and Torres Strait Islanders to leverage 4IR opportunities, it is vital that they are technologically literate.

Aboriginal and Torres Strait Islander communities are relatively new users of modern technology platforms and measures are required to ensure all community members are competent in technological literacy, including the elderly.

3.3 Inclusion in STEM (Science, Technology, Engineering and Mathematics)

Science, technology, engineering and mathematics (STEM) education is now included within the Australian Curriculum,¹⁴ and implemented from 2016 to 2026 through the development of the National STEM School Education Strategy. But, as the Aboriginal and Torres Strait Islander Higher Education Advisory Council has stated, 'STEM disciplines are the gateway to many professions and Indigenous people are consistently underrepresented in these disciplines.'¹⁵

Aboriginal and Torres Strait Islander children should be encouraged and viewed as the next generation of innovators and critical thinkers for the Indigenous community, especially in STEM disciplines. Involving younger generations allows Indigenous ways of being and knowing to be incorporated into solving technology, health and education issues in these communities. Aboriginal and Torres Strait Islander students can be creators (not just users) of digital technology. Prioritising and enabling First Nations people to contribute to STEM will provide pathways to economic participation and independence for Aboriginal and Torres Strait Islander individuals and communities, whilst contributing to Australia's economic growth.

3.4 Aboriginal and Torres Strait Islanders are underrepresented in technology

In the next decade, there is a genuine risk that Aboriginal and Torres Strait Islander peoples will remain underrepresented in Australia's technology industry. If technology is shaped without unique Aboriginal and Torres Strait Islander perspectives and cultural knowledge, then the technology sector (and society more broadly) will be worse off.

In the next five years, increasing digitisation and automation will require approximately 90% of Australians to utilise some level of digital skills at work.¹⁶ So, Australia's economic prospects will depend in large part upon the nation's success in digitally upskilling its population for roles in all sectors, not just technology.

Founder of Indigi Lab, Luke Briscoe highlights that while Aboriginal and Torres Strait Islander people might be consulted for cultural knowledge on technology projects, they are rarely involved in the coding and design of the technology itself. After they provide cultural knowledge for a project, Indigenous people have no control over it, and the community is unable to protect how its knowledge is used and represented. This jeopardises the rights of Aboriginal and Torres Strait Islander communities to protect their own culture. To circumnavigate this risk, Briscoe recommends that the technology sector acknowledges that Aboriginal and Torres Strait Islander people contributed to technology long before the first industrial revolution.

3.4.1 Indigenous Tech Academy

At PIC, we are currently collaborating with PwC Australia, Revolent and Salesforce on the Indigenous Tech Academy (ITA)¹⁸. The ITA is a new program that will provide a Salesforce pathway for Indigenous youth in communities around the country. ITA is a catalyst for the inclusion of Indigenous Australians in the technology economy. We identify, coach, train and place Indigenous students within government and corporate employers who provide on-the-job work and training opportunities. We provide corporates and government with trained Indigenous students, support and cultural training. PIC and PwC Australia are committed to establishing the

ITA to drive employment outcomes for Closing The Gap and to provide career pathways for Indigenous youth.

The ITA is focused on several outcomes and benefits, including:

- **Social contribution:** To move to a new, technology-strong economy providing the potential for a new era of prosperity for Australia
- **Experience:** The program adheres to the '70/20/10' rule, in that much (i.e. 70%) of a worker's knowledge can be gained on the job, without mandatory degree qualifications
- **Regional economy:** In regional and remote locations in particular, employment opportunities (e.g. help desk, IT support) could unlock huge levels of latent potential, increasing regional/remote GDP and reducing social services payments to community members with otherwise very limited employment opportunities.

To provide Indigenous youth with the opportunity to work on real jobs in technology, we intend to train 16 certified ITA staff as members of our delivery team on PIC and PwC Australia jobs. PIC/PwC Australia will invest time in supporting and training these young participants as a part of our commitment to their development.

Recommendations for government

- Support pilot digital programs that empower new ways of working for Indigenous organisations to upskill a group (rather than individuals) within a community to improve sustainability through digital engagements
- Build internal government capability to respectfully engage with communities through virtual environments
- Support and pilot projects to conduct virtual engagement to develop communities' digital literacy
- Support and scale programs like the Indigenous Tech Academy to bring tangible opportunities and benefits for communities.

Resources/reference library

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