

Indigenous Digital Inclusion Plan

ADM+S Response to NIAA

Discussion Paper



5 November 2021

Introduction

We welcome consultation on the Indigenous Digital Inclusion Plan. This Plan comes at a critical time, with the introduction of Outcome 17 of the National Agreement on Closing the Gap establishing a target of equal levels of digital inclusion for Aboriginal and Torres Strait Islander people by 2026. The First Nations digital gap is currently widening (ADII 2020) and COVID-19 pandemic lockdowns have raised public awareness of the impact of digital exclusion for Aboriginal and Torres Strait Islander people living in remote and outer regional communities. Additionally, with the digital transformation of government and other services to online delivery, digital inclusion is increasingly necessary to access essential services with no alternate means.

Clearly, significant investment and cooperation is needed to achieve the 2026 target and undertake the data collection to inform program needs and measure the digital gap over time.

This submission is written on behalf of the ARC Centre of Excellence for Automated Decision-Making and Society (ADM+S), which includes the team that coordinate the annual Australian Digital Inclusion Index (ADII) as well as the 'Mapping the Digital Gap Project'. (Overviews of ADM+S, ADII and the 'Mapping the Digital Gap' Project' on page 2).

Beyond initial general comments, this submission will focus primarily on the questions relating to data collection in the Discussion Paper. It will point to research already undertaken and areas that require further investigation.

Members of our team have also been asked to review and contribute to submissions by First Nations Media Australia (FNMA), Australian Communications Consumer Action Network (ACCAN) and Australian Digital Inclusion Alliance (ADIA), which we support in principle.

We would be happy to provide further detail and discuss the points made in this submission upon request.

About ADM+S

The ARC Centre of Excellence for Automated Decision-Making and Society ([ADM+S](#)) is a cross-disciplinary national research centre. ADM+S aims to create the knowledge and strategies necessary for responsible, ethical, and inclusive automated decision-making. It brings together leading researchers in the humanities, social and technological sciences in an international industry, research and civil society network.

ADM+S is a collaboration between nine Australian universities: RMIT University (host institution), Monash University, Swinburne University, Queensland University of Technology, University of Melbourne, University of New South Wales, University of Queensland, University of Sydney and Western Sydney University. The Centre also partners with eight universities from around the world. Industry and civil society partners include Google, Telstra, Bendigo Health, Australian Red Cross, the ABC, Australian Communications Consumer Action Network (ACCAN), Algorithm Watch, and the Digital Asia Hub.

ADM+S researchers have extensive experience and engagement with initiating and managing research infrastructure facilities as well as expertise in research and innovation policy, governance and business models. ADM+S Researchers and partner organisations have been involved with institutional and national research infrastructure facilities including: Analysis & Policy Observatory (APO), Data Co-op (Swinburne), AURIN, Australian Data Archive (ADA), Trisma, the QUT Digital Observatory, Austlii, the Australian Text Analytics Platform and the Language Data Commons of Australia (LDaCA).

About the ADII

The annual [Australian Digital Inclusion Index](#), managed by RMIT and Swinburne Centre for Social Impact and funded by Telstra, uses survey data to measure digital inclusion across three dimensions of Access, Affordability and Digital Ability. It explores how these dimensions vary across the country and across different social groups. A detailed measure of digital inclusion for Australia allows us to identify the critical barriers to inclusion. These may be related to accessing networks, the costs of devices or data, or skills and literacies. The Index can help shape initiatives to increase digital inclusion in Australia.

The ADII was first developed in 2015 in response to the increasing need for data to inform the development of more effective policies, products, and programs to improve digital inclusion and ensure no one misses out. In 2021, a revised Index was launched, reflecting the evolution of internet use and the skills required to navigate life online, and ensuring the Index's continued relevance into the coming years. (See *Appendix 2 - Introducing the revised Australian Digital Inclusion Index*)

About the 'Mapping the Digital Gap' Research project

The ['Mapping the Digital Gap'](#) project, being conducted by ADM+S at RMIT University in partnership with Telstra, aims to map digital inclusion in remote Aboriginal and Torres Strait Islander communities from 2021-24. Working in partnership with local agencies in 10-12 remote First Nations communities, and using an adapted ADII survey and ethnographic research methods, this longitudinal study aims to:

1. Generate a detailed account of the distribution of digital inclusion and the uses of digital services including news and media across 10-12 First Nations communities;
2. Track changes in measures of digital inclusion for these communities over time; and
3. Inform the development of appropriate local strategies for improving digital inclusion capabilities and services enabling informed decision-making in First Nations communities.

The research is currently in the first stage of data collection with initial findings to be published in October 2022. (see *Appendix 3 for more details*)

General Response

NIAA Discussion Paper and Roundtable Process

We commend NIAA on its background research for the Discussion Paper and its comprehensive review of existing literature, much of which has been undertaken by the research team at ADM+S and RMIT. We also commend the Roundtable process which has provided an opportunity for a multitude of perspectives to be shared across a range of topics.

We are pleased to see that the Government’s approach to the Plan is aligned to the key digital inclusion measures used within the Australian Digital Inclusion Index- Access, Affordability and Digital Ability. This will ensure consistency between the policy and research communities and enable an effective means of tracking change against these three measures over time to identify where targeted investment and programs are needed.

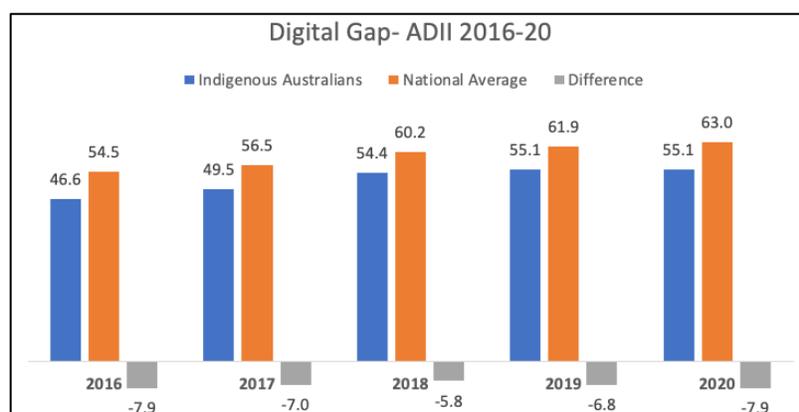
We also note the importance placed on data on Indigenous Digital Inclusion, with urgent research needed in order to track progress on the Closing the Gap target leading up to 2026, and inform the targeted investment and programs needed to close the digital gap.

Closing the Digital Gap by 2026

We note from the introduction that the IDIP’s “focus on the needs of Indigenous Australians living in regional and remote areas” will not include the needs of urban and inner regional First Nations people. While the evidence clearly shows that the digital gap is greatest within remote and outer regional Australia, we believe there is a need for a more inclusive IDIP and subsequent investment in national digital inclusion programs. This has also been raised in the ACCAN submission as a point of concern. We also note ADIA’s call for Indigenous Digital Inclusion Plan to be integrated into an overarching national strategic approach to digital inclusion.

While we understand that this Plan is a response to the recommendation from the 2018 Regional Telecommunications Review, we suggest that the subsequent development of Closing the Gap outcome 17 should now be the driver for policy and programs to address First Nations digital inclusion.

As recognised in the Discussion Paper, results from the Australian Digital Inclusion Index show that the gap in Indigenous digital inclusion has widened in recent years from 5.8 in 2018 to 7.9 in 2020.



Note that the survey methodology used up to 2020, drawing on Roy Morgan research, only provided results for First Nations people living in urban and regional Australia, and was not inclusive of remote and outer regional communities. However, with 37.4% of Aboriginal and Torres Strait Islanders living in cities and 23.7% in inner regional centres according to 2016 ABS statistics, an inclusive approach will be required in order to meet the Closing the Gap target of digital equity by 2026.

Based on current trends, combined with the accelerated broadband uptake as a result of the NBN rollout, digital transformation to online service delivery and the COVID-19 pandemic, it is likely that the gap for urban and regional First Nations people will continue to widen without dedicated programs to address household access to broadband and ICTs, affordability and digital ability.

Measuring the Digital Gap in Remote Communities

The 2021 ADII report makes the following observation:

Remote First Nations communities have been required to respond to the pandemic often without adequate communications. Meeting the challenge of Australia’s Closing the Gap targets for digital inclusion will require a substantial effort to support the development of effective local strategies, combined with the necessary data collection to track outcomes at a national level. (ADII 2021:8)

Clearly the range of challenges are more extreme in remote and outer regional Australia across all three measures. As noted in the discussion paper, there is a lack of quantitative data about telecommunications use and the scale of the digital gap across the 1100+ remote Indigenous communities (ACMA 2008; Rennie, Thomas and Wilson 2019).

Apart from ADII reports, most data on First Nations internet use is 5 years old or more. The 2016 Census also found a significant variation in Aboriginal and Torres Strait Islander households internet access based on location: 82.8% in major metropolitan areas access the internet, compared with 73.2% in regional areas, 61.3% in remote areas, and 49.9% in very remote areas.

The Northern Territory Homelands and Outstations Assets and Access Review (CAT 2016), undertaken in 401 Indigenous Homelands and Outstations in the NT, found that only 20% of homelands had mobile phone access, 37% had internet access and, 80% of the communities with internet access only had a single access point. While there has been significant investment in satellite, mobile and Wi-Fi communications infrastructure in remote communities since 2016 (Featherstone 2020), there has been very limited research to assess the change in household internet use over that period.

In an effort to address the lack of remote community data, the ADII commissioned two supplementary remote community case studies in [Ali Curung](#) in the Northern Territory in 2018 and [Pormpuraaw](#) in far north Queensland in 2019. These one-off case studies found that the digital gap increased significantly with remoteness, particularly in the areas of Access and Affordability. In both communities there was a heavy reliance on mobile connectivity and the key barrier to digital inclusion was Affordability, especially in relation to income. However, the research also showed high levels of Digital Ability, underlining the importance and potential benefits of digital services

for remote communities. These factors vary greatly from site to site, so more detailed research is urgently needed.

ADII	Access	Affordability	Digital Ability	DIGITAL INCLUSION INDEX SCORE (GAP)
Ali Curung 2018	47.3	25.8	52.3	42.9
Indigenous ADII Score 2018 (Gap)	68.5 (-21.2)	49.7 (-23.9)	45.0 (+7.3)	54.4 (-11.5)
National average ADII score 2018 (Gap)	73.4 (-26.1)	57.6 (-31.7)	49.5 (+2.8)	60.2 (-17.3)
Pormpuraaw 2019	50.1	9.0	51.4	36.7
Indigenous ADII Score 2019 (Gap)	68.4 (-18.3)	52.4 (-45.4)	44.4 (+7.0)	55.1 (-18.4)
National average ADII score 2019 (Gap)	75.7 (-25.6)	59.2 (-50.2)	50.8 (+0.6)	61.9 (-25.2)

The ‘Mapping the Digital Gap’ research project, established through ADM+S in partnership with Telstra in 2021, seeks to address the lack of longitudinal data on digital inclusion levels across remote Australia. It aims to generate the most detailed account to date of the distribution of digital inclusion and the uses of digital services including news and media across Indigenous communities. Working with local research partners in 10-12 remote and outer regional communities, it will track changes in digital inclusion levels over time, and inform the development and evaluation of appropriate local strategies for improving digital inclusion capabilities and services enabling informed decision making in remote Indigenous communities.

While this project will contribute valuable data to measure digital inclusion in remote First Nations communities, more data collection is needed on First Nations digital inclusion levels across urban and regional Australia. We have addressed this further in our response to the data questions in the discussion paper below.

A Co-Design Co-Delivery Approach

Resolving First Nations digital disadvantage is critically important. The Australian Government has recently acknowledged this in the creation of a new Closing the Gap Target (Target 17) for digital inclusion and access to relevant media services, championed by First Nations Media Australia and the Coalition of Peaks.

A key element of the National Partnership Agreement on Closing the Gap is co-design and co-delivery by First Nations community-controlled organisations. We would encourage the voices of First Nations people to be prioritised in the development and implementation of the IDI Plan.

The 2018 Regional Telecommunication Review report recommended “a more coherent and holistic policy approach to telecommunications services in Indigenous communities” however made the point that it “is important that there is local ownership of the strategy, and that it builds upon the capacity of existing organisations, infrastructure and programs to avoid duplication.” (p.7, RTR report 2018).

Funded Programs

We note that Recommendation 8 of the 2018 Regional Telecommunication Review called for a “targeted Indigenous Digital Inclusion program with a focus on access, affordability and digital ability be developed in partnership with Indigenous communities.” (p. 14, RTR report). The Australian Government’s response, in agreeing to develop an Indigenous Digital Inclusion Plan, risks not having a budget to implement the programs needed to close the digital gap by 2026.

We would encourage that a budget submission be undertaken for the upcoming 2022/23 Budget cycle to support implementation of the Indigenous Digital Inclusion Plan. Without well resourced programs to implement the IDIP, there is likely to be little progress towards achieving the Outcome 17 target of digital equity by 2026.

Based on extensive input from remote First Nations organisations and stakeholders through the annual Broadband for the Bush Indigenous Focus Day, a comprehensive 6-part Indigenous Digital Inclusion Strategy was proposed by Indigenous Remote Communications Association (now First Nations Media Australia) in its 2018 RTR submission, including data collection, prioritised broadband infrastructure rollout, public internet access through last-mile delivery systems, unmetered access to all online government and essential online services, culturally and language appropriate digital literacy program and a Community Digital Mentors program. This proposed strategy covers the key areas of need identified within recent research (Featherstone 2020, Marshall et al 2020, Bankwest Curtin Economic Centre 2018).

Remote First Nations communities have been required to respond to the pandemic often without adequate communications. Meeting the challenge of Australia’s Closing the Gap targets for digital inclusion will require a substantial effort to support the development of effective local strategies, combined with the necessary data collection to track outcomes at a national level.

We note that there is already significant research available about program needs in First Nations communities, with recommendations to guide immediate areas of investment (see Featherstone 2020; Marshall et al 2020)

Role and Limitations of Current Research

Appendix 1 of this submission provides an overview of literature relevant to the development of the Indigenous Digital Inclusion Plan. However, we note that further research is needed beyond these projects to understand the diverse barriers to digital inclusion for Aboriginal and Torres Strait islander people in remote, regional and urban Australia.

While the ADII provides comprehensive annual data on the dynamics of digital inclusion experienced across the country, the sample poses limitations for reporting on First Nations peoples’ digital inclusion. The 2021 ADII report (see Appendix 2) draws on a national sample which does not provide sufficient First Nations respondents to generate reliable data and, consequently, the 2021 Index does not provide a score for First Nations populations.

The ‘Mapping the Digital Gap’ research project (see Appendix 3), now being conducted by the ADM+S Centre at RMIT University with support from Telstra, is intended to make a valuable

contribution to the understanding of digital inclusion in remote Aboriginal and Torres Strait Islander communities, and to the development of strategies to improve outcomes. The project is working with 10-12 remote communities to generate First Nations Index scores and track changes in digital inclusion over a four-year period (2021-2024). It will also provide insights for local digital inclusion strategies and for measuring digital inclusion more broadly.

Without adequate data collection it is not possible to assess whether infrastructure and other digital inclusion programs are successfully helping in meeting Closing the Gap Target 17. The funding of an appropriate means of data collection that enables comparison with national digital inclusion levels is a matter of priority. The ADII team could undertake a dedicated First Nations ADII survey, provided there is adequate resourcing to ensure the appropriate survey methodology and representative sample across remote, regional and urban Australia.

Open data access should also be a consideration in any data collection, enabling First Nations organisations and communities to access data that relates to them for their own planning and use.

Need for Targeted Programs

There has been significant government investment in infrastructure programs in the last decade through the Mobile Black Spots program, Regional Connectivity Program, National Broadband Network, and other State co-investment activities. However, there is still a significant gap in household access to phone and internet, particularly in small communities (under 200 people) and homelands where there is not a sufficient business case for industry co-investment in mobile services under these programs.

Targeted programs are needed to support locally driven solutions to enable affordable access to internet and ICTs. There are a range of existing solutions that can be extended, including free public WiFi hotspots and mesh networks, community access IT facilities, and unmetered access to government services, banking, education and First Nations services.

Some examples of effective community WiFi solutions include the Tjuntjuntjara community WiFi Mesh network supported by WA Government (p26, [Featherstone 2020](#)) and regional WiFi installations by organisations such as Ngaanyatjarra Media, CAYLUS, WYDAC and Northern Territory Library. Several communities are installing WiFi Mesh networks, including household repeaters, through the latest round of Regional Connectivity Program. While Wi-Fi does not have the signal penetration of mobile transmission, it is a cost-effective alternative to mobile coverage, that enables local management of data and cost sharing, pre-paid voucher systems, content filtering and optional curfew times on service. Wi-Fi services can also be used for phone calls using WiFi Calling on mobile devices.

However, the majority of communities do not have affordable last-mile options such as public WiFi to enable free access to online government, banking and other essential services. While the nbn SkyMuster Plus service now enables unmetered access to non-video or VPN content, mobile remains the predominant means of personal internet access in communities, which does not provide unmetered access to these services. There is currently a piecemeal approach to provision of WiFi and other last-mile delivery in communities, largely driven by state-based and locally

funded programs, as well as the RICTA community phones program in homelands of under 50 people. NBN's 'Communities in Isolation' WiFi services has additionally provided free WiFi in 54 remote communities under its COVID-19 emergency response. More support is needed to ensure continuity and expansion of these types of last-mile solutions. An audit of available services in communities is also needed to identify community access gaps.

With mobile devices being the predominant means of access for Aboriginal and Torres Strait Islander people, there is still a need for public access facilities that enable access to computers for home schooling, work, videoconferencing and many applications not suited to mobile devices. The 2014-15 NATSISS survey found that 11.4% of remote internet users and 27.0% of very remote users rely exclusively on 'out-of-home' connections. Successful models such as the Indigenous Knowledge Centre Network in Queensland, support by State Library of Queensland, as well as the Community Resource Centre network in Western Australia regional, rural and remote communities, and the computer rooms in Central Australia supported by CAYLUS, demonstrate the importance of affordable, continuous access in order to develop confident engagement with ICTs and online services (see Kral and Schwab 2015). As outlined in the Discussion Paper, there are a number of pros and cons in the use of community access facilities, however for many remote First Nations people these can be the only place to access ICTs and internet in some communities.

Where funding is provided to support 'diffusion' of access to communications and ICT infrastructure, there needs to be consideration given to the ongoing operational costs of this infrastructure to ensure its ongoing access. As explained by Radoll and Hunter (2019:3), "once innovations are adopted, they need to receive ongoing investment to maintain their usefulness. Hence, diffusion is only one part of the story; in terms of the dynamics of the digital divide, we need to understand the outcomes and processes associated with antidiffusion, where households who had access to the internet lose their access to it over time." Comparing 2006 & 2011 Census data, Radoll and Hunter found a much higher Indigenous rate of antidiffusion in in remote and very remote areas at 20% compared with 6-7% for non-Indigenous people. Radoll and Hunter outline several key factors affecting this high level of anti-diffusion, however further investigation of these issues are required in any data collection.

There has not been a targeted digital literacy program since the completion of the Remote Indigenous Public Internet Access (RIPIA) program in 2013. With digital transformation of government service delivery to online, and increasing reliance on online access for work, education, and access to essential services, this is much needed. Digital literacy is an ongoing learning journey, not a one-off workshop. It includes building awareness of cyber-safety issues, addressing language and cultural barriers, and developing trust and agency in use of computer-based applications and online services.

Consequently we recommend the use of First Nations community organisations in the design and delivery of targeted programs to ensure effective response to local needs, culturally appropriate delivery and community capacity building as key factors in program design. The employment of local digital mentors or access workers to provide community support in use of online services and relevant applications, including cyber-safety advice, will help to address issues of trust and ensure ongoing capability development.

Responses to Questions on Data

1. ***Are there any additional existing data sources regarding Indigenous digital inclusion or other data sources that are being used to measure Indigenous digital inclusion?***

As noted on page 19 of the Discussion Paper, the current ADII survey does not have sufficient resources to capture data specifically for Indigenous Australians and has limited information regarding those living in remote communities. In addition, the ADII's transition to using the new Australian Internet Usage Survey in 2021 has meant that, with a reduced survey sample size, it was unable to provide a comparative result for First Nations people this year.

Further, there is a lack of existing data sources on Indigenous digital inclusion. With questions on internet access no longer included in the Census in 2021 and the Internet Activity Survey no longer undertaken since 2018, there is currently no ABS data collection on this important area. There has also not been an update to the internet use data from the 2014-15 National Aboriginal and Torres Strait Islander Social Survey (NATSISS), with the next survey due in 2022/23 unlikely to include internet use as a focus area.

The ADM+S 'Mapping the Digital Gap' project will undertake its first round of research from February to June 2022, using an adapted version of the ADII survey to include media and news usage (consistent with the CTG Outcome 17) for quantitative data, as well as a range of qualitative research methods in 12 remote, very remote and outer regional communities. The first-round results will be published by October 2022, with subsequent reports in 2023 and 2024. This will provide the most comprehensive digital inclusion data on remote First Nations communities to date. However, the scope of this project does not cover urban and regional First Nations people.

Further Australian government investment is needed to undertake the scale of research required to ensure a representative sample of First Nations peoples. Rather than develop a new survey tool, it would be prudent to build upon the existing ADII digital inclusion survey tool and its associated analysis methodology and dashboard interface, by commissioning a dedicated annual or biennial First Nations survey. This would provide comparability with national results collected by ADII across the key indicators - Access, Affordability and Digital Ability - in order to measure the nature of the digital gap at a granular level. A dedicated First Nations dashboard could be developed to enable the data to be made publicly available and easily interrogated by users according to state, region, socio-economic grouping, age, gender and much more.

2. ***What data needs to be captured for the ongoing measurement of Indigenous digital inclusion?***

The ADII already provides an effective means of measuring digital inclusion, however data collection for this purpose would need to be carefully designed and resourced to ensure a representative sample across remote, regional and urban Australia.

In order to more closely align with the Closing the Gap measures, the 'Mapping the Digital Gap' project has adapted the ADII survey to include additional questions beyond the standard questions relating to Access, Affordability and Digital Ability. These questions relate to:

- Aboriginal and/or Torres Strait Languages spoken;
- Availability and use of home and public phones (as these are often the only means of communication in many sites without internet access); and
- use of radio, television and other media sources for accessing news, information and locally relevant content, including in language.

A data collection approach is needed that enables a broader understanding of the communications ecology within First Nations communities, where online services are one of a range of ways that people currently access services and support.

With digital transformation of government and other services to online delivery, effective and affordable access to these services is critical to addressing other Closing the Gap targets in employment, education, health, justice, housing and so on. As well as the requisite factors of access, affordability and digital ability, this also requires a review of useability of services by people with limited or no English literacy, lack of key identification details, mobile-only access and so on. Rennie, Thomas and Wilson (2019:113) make the point that “it is important that government service access questions of the type posed in NATSISS 2014–2015 be incorporated in future research as a mechanism for evaluating the impact of government service digitisation.”

With increasing use of videoconferencing for tele-health, remote schooling and training, online court hearings, and virtual meetings, there is a need for the quality and reliability of communications services to meet required standards. The speed, latency and quality of services needs to be measured and an agency (ACMA, TIO or other) tasked with ensuring telcos are providing the quality of services being paid for.

Other digital inclusion frameworks have been developed that include different sets of elements to those used by the ADII. Taking a remote Indigenous consumer approach, Featherstone (2015) proposed the 4 key elements of digital inclusion to be Access, Affordability, Awareness and Appropriateness, which incorporates cultural and language barriers and trust. The New Zealand Digital Inclusion Blueprint lists the four elements of digital inclusion to be Motivation, Access, Skills and Trust. The crucial role of Motivators and inhibitors is used by Radoll (2010) to compare ICT adoption in remote, rural and urban Indigenous households. The Western Australia draft Digital Inclusion [Blueprint](#) adopted a framework of Connectivity, Affordability, Skills and Design, which incorporates accessibility and functionality of ICTs and online services.

While harder to measure, the factors of motivation, trust and appropriate content and learning methods are important considerations in digital inclusion measurement and program design. It is also important to include questions that will draw out the level of anti-diffusion of ICT use in First Nations households (Radoll and Hunter 2019) in any data collection, and the causal factors behind this.

3. How can data on Indigenous digital inclusion be better captured and utilised?

The ADII can be used to undertake a dedicated First Nations survey and enable comparability with national results to measure progress against the Closing the Gap target of digital equity by 2026. This would require government investment and engagement in order to survey a representative sample of First Nations peoples, including an appropriate methodology using face-to-face surveys

in remote sites with community-based co-researchers, and/ or other means of offline surveys for people who do not have phone or internet access or English fluency.

People living in remote communities regularly engage with a range of government and other service providers including Centrelink, training and employment programs, public and community-controlled health agencies, licensing, Shire services, housing providers, social services, police and justice, and so on. As part of their engagement, these providers could collect de-identified data on means of access to services, ability and barriers to using services, and effectiveness of online delivery platforms. This could contribute to a growing national Closing the Gap data set as well as inform improved delivery of these services. It would also help to promote a whole-of government approach to addressing Indigenous digital inclusion.

4. What could be data proxies in the absence of specific data sources on digital inclusion?

There are few reliable proxies on digital inclusion, however some potentially collectable data that may help identify gaps or outstanding needs would be:

- Level of usage of online services (eg Centrelink) by remote Indigenous people, including for reporting purposes (including whether acting independently or assisted);
- Number of people able to effectively use videoconferencing for consultations, meetings, training etc;
- Data on available telco services to communities (e.g. 3G, 4G, ADSL, satellite);
- Number of ATSI households with fixed phone and/ or internet connectivity in community;
- Average expenditure on pre-paid phone cards per capita in communities;
- Average expenditure on WiFi vouchers based on number of users in communities;
- Average mobile and or WiFi data usage per capita.

Some of this data may be available through government agencies and/or government funded activities, as well as through NBN data. However, due to privacy laws, permission may be required for this data collection and to access existing data sets.

We note the reference in the Discussion Paper to Priority Reform 4 within the National Partnership Agreement on Closing the Gap (2020:3): “Aboriginal and Torres Strait Islander-led data: Aboriginal and Torres Strait Islander people have access to, and the capability to use, locally-relevant data and information to set and monitor the implementation of efforts to close the gap, their priorities and drive their own development.”

We recommend that the principle of Indigenous data sovereignty be an underlying principle of the methodology for data collection and distribution within this Plan. Indigenous data sovereignty is a response to the intensification of data collected about Indigenous people and issues of importance to them, whether by commercial, government, NGOs, research entities, or international agencies. It is primarily concerned with how data is collected, accessed, stored, and used, and entails “managing information in a way that is consistent with the laws, practices and customs of the nation-state in which it is located” (Snipp 2016, 39).

Currently most data relating to remote telecommunications infrastructure and service, as well as usage and expenditure statistics, is tightly controlled by telecommunications companies and/or State and Federal government agencies. This prevents access to this data for community-based planning or digital inclusion research. While some data sets relating to recent government funded infrastructure programs such as the Mobile Black Spots Program are available on data.gov.au and some State-based websites, there is no national map indicating the types of infrastructure, services and access facilities available in all remote Aboriginal and Torres Strait islander communities. This would be a useful starting point for identifying gaps in existing infrastructure and services to assist in targeted planning and monitoring of changes over time.

An outcome of the IDI Plan could be the establishment of data sharing agreements with telcos to leverage existing data, as well as guide future data collection, to enable access by First Nations communities and organisations.

Appendix 1- Indigenous Digital Inclusion Literature

This Appendix provides an overview of relevant research, reports, evaluations and submissions that can help to inform the development of the Indigenous Digital Inclusion Plan and subsequent programs to address identified barriers or needs.

Digital Inclusion Measurement

Thomas, J., Barraket, J., Parkinson, S., Wilson, C., Holcombe-James, I., Kennedy, J., Mannell, K., Brydon, A. (2021). Australian Digital Inclusion Index: 2021. Melbourne: RMIT, Swinburne University of Technology, and Telstra. [Australian Digital Inclusion Index \(ADII\) 2021](#)

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ABS. 2015. *National Aboriginal and Torres Strait Islander Social Survey 2014-2015*. Retrieved from: <https://www.abs.gov.au/ausstats/abs@.nsf/mf/4714.0>

Digital Divide in Australia

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Vinson, T and Rawsthorne, M (2015). Dropping off the Edge: persistent communal disadvantage in Australia. Jesuit Social Services/Catholic Social Services Australia. Viewed at http://k46cs13u1432b9asz49wnhcx-wpengine.netdna-ssl.com/wp-content/uploads/0001_dote_2015.pdf

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New Zealand Government. 2019. *The Digital Inclusion Blueprint: Te Mahere mo te Whakaurunga Matihiko*. Department of Internal Affairs Te Tari Taiwhenua: Wellington. March 2019. Retrieved from: <https://www.digital.govt.nz/assets/Documents/113Digital-Inclusion-BlueprintTe-Mahere-mo-te-Whakaurunga-Matihiko.pdf>

Western Australian Government. 2020. *Digital Inclusion in Western Australia: A Blueprint for Digital Inclusion in WA*. Draft discussion paper by Department of the Premier and Cabinet: Perth. June 2020. Retrieved from: https://www.wa.gov.au/sites/default/files/2020-07/Consultation%20draft.%20A%20Blueprint%20for%20a%20digitally-inclusive%20state_6.pdf

Regional Telecommunications

ACCAN. 2021. Submission to the 2021 Remote Telecommunications Review. Retrieved from: <https://accan.org.au/accans-work/submissions/1921-2021-regional-telecommunications-review>

Babacan H., McHugh J., Marshall A., Gopalkrishnan, N., Dale, A. 2021. *TCICA Region Telecommunications and Digital Connectivity: Final Report (2021)*, undertaken by James Cook University and Queensland University of Technology in 13 local government areas in Far North Queensland, funded by the Torres and Cape Indigenous Councils Alliance (TCICA).

First Nations Media Australia. 2021. *Submission to the 2021 Regional Telecommunications Review*. Retrieved from:

<https://firstnationsmedia.org.au/sites/default/files/files/Submissions/RTR%20Submission%20FMA%20Sept%202021.pdf>

Marshall, A., Dezuanni, M., Wockner, K., Babacan, H., Burgess, J., Crawford, F., Foth, M., Gregory, R., Mitchell, P., Neale, T., Rogers, S., Wallace, R. 2020. *Northern Australia Communications Analysis*. Discussion paper for CRC for Developing Northern Australia. Retrieved from:

<https://crcna.com.au/resources/publications/northern-australia-communications-analysis>

Regional Telecommunications Independent Review Committee. 2018. *Regional Telecommunications Review: Getting it right out there*. Commonwealth of Australia.

<https://www.infrastructure.gov.au/who-we-are/regional-telecommunications-review>

Remote Indigenous Communications

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Appendix 2 - Introducing the revised Australian Digital Inclusion Index

2021 marks the first release of findings from a revised and updated Australian Digital Inclusion Index. The revised Index retains our longstanding focus on Access, Affordability, and Digital Ability, these dimensions have been reconceptualised to reflect the evolution of internet use and the skills required to navigate life online.

- **Access:** As online access becomes more widespread, access is increasingly shaped by the degree and intensity of people’s connectivity and usage. Our approach has been updated and is future focussed, considering a wider variety of devices and connections than earlier ADII reports.
- **Affordability:** Similarly, as the importance of a good quality internet connection has become increasingly clear, we have revised our measure of Affordability. A rudimentary connection may be relatively inexpensive but is no longer an adequate basis for digital inclusion.
- **Digital Ability:** Our approach to Digital Ability has been refreshed and aligned with an internationally validated and recognised approach: the Internet Skills Scale.

These changes extend the valuable contribution the ADII has made in identifying and addressing digital inequality since 2015 and will ensure the Index’s relevance into the coming years.

Greater detail about the revised Index can be read in the 2021 case study: *Introducing the revised and updated ADII*.

The revised Index dimensions

The Australian Digital Inclusion Index is a relative measure of inclusion. Using a score of 0-100, it compares the degree to which individuals can be considered more digitally included than others based on three dimensions: Access, Affordability, and Digital Ability. A score closer to 100 indicates higher inclusion while scores closer to 0 indicates greater exclusion.

Each of the three ADII dimensions are made up of multiple components, which are sourced directly from the Australian Internet Usage Survey (AIUS) questions.

Access

Access is about the types of digital connections and devices and how frequently we use them to get online. It also includes how much data we can use.

A typical individual with a high Access score has:

- Daily use and high intensity of use.
- Fixed broadband.
- Fast and unlimited data allowances that are not exceeded.
- Access via a range of devices.

Dimension	Components
Access	Frequency and intensity of use, ranging from now use at all to daily use.
	Connection type, such as fixed broadband or mobile-only.
	Types of devices, including desktops, laptops, smart phones, tablets, and an array of smart home devices.

Affordability

Affordability is about the percentage of household income required to gain a good quality service with reliable connectivity. To do this, we consider the price of a basket of goods and services required for a well-connected household.

A person with the highest Affordability score would pay 2% or less of their household income for the internet bundle. This is based on an international standard [8], which suggests households should not be paying more than 2% of their income for access.

We also identify Affordability stress.

The Affordability stress score describes the percentage of household income required for a family or single-headed household to gain access to a defined Internet Bundle. It occurs when the lowest income groups (typically defined as those in the lowest 40% of the income distribution) must pay a relatively large proportion of their income to access the internet bundle.

The Affordability stress score categorises expenditure on the internet bundle in four categories: up to 2% of household income; up to 5% of household income; up to 10% of household income; and more than 10% of household income.

Paying more than 5% of their household income on the internet bundle would tip many lower income households into Affordability stress, compromising their capacity to pay for other essential household items. To avoid this, many lower-income households may buy cheaper and often inferior connections and devices that limit the quality of connections and opportunities of internet use.

Households that would have to pay more than 5% of their household income to access the internet bundle are considered to have 'low Affordability'. Households that would have to pay less than 5% of their household income are considered to have 'high Affordability'.

Dimension	Components
Affordability	<p>Ratio of household income to the median cost of an 'internet bundle' for an ideally connected single-headed and family household.</p> <p>The internet bundle enables both quality and reliable connectivity through:</p> <ul style="list-style-type: none"> • A fast internet service, including a cable (UFC) service, NBN 50 or above, or 5G wireless service. • Unlimited monthly data allowance through a fixed broadband service. • Mobile broadband or mobile phone data allowance above 61GB per month.

Digital Ability

Digital Ability is about our skill levels, what we are able to do online, and our confidence in doing it. A person with a high Digital Ability score can perform the range of tasks across each domain while those with lower scores may only have basic or no operational skills.

Our revised approach to Digital Ability is based on a tailored version of the Internet Skills Scale, developed by leading digital inclusion researchers Van Deursen, Helsper, and Eynon (2014).

Greater detail about our updated approach to Digital Ability can be read in the 2021 case study: *Taking a deep dive into Digital Ability*.

Dimension	Components
Digital Ability	Basic operational: Including downloading and opening files, connecting to the internet, and setting passwords.
	Advanced operational: Including saving to the cloud, determining what is safe to download, customising devices and connections, and adjusting privacy settings.
	Information navigation: Including searching and navigating, verifying trustworthy information, and managing third party data collection.
	Social: Including deciding what to share, how, and who with, manage and monitor contacts, and communicate with others.
	Creative: Including editing, producing, and posting content, as well as a broad understanding of the rules that may apply to these activities.
	Automation: Including connecting, operating, and managing smart devices and IoT technologies.

Key benefits of the revised Index

Central to the Index’s revision is our use of a purpose-built digital inclusion survey tool that was developed and is owned by the ADII team: the Australian Internet Usage Survey (AIUS).

In particular, we:

- Have used Small Area Estimate modelling aligned to ABS areas to provide insights into digital inclusion for most state, territory, and local government areas.
- Now measure the extent to which people’s opportunities fall below an acceptable standard to better understand the nature of digital exclusion over time. We do this by identifying the number of Australians who fall within four categories along the continuum of digital exclusion to inclusion. The Index threshold scores for the four groups are: Highly excluded (45 or below); Excluded (above 45 and below 61); Included (61 and below 80); Highly included (80 and above). This approach will help support more targeted policies and programs by providing a benchmark we can track against.
- Now collect data on key digital inclusion concerns that extend beyond the Index, providing deeper understanding into what Australians do online, and how they feel about it.
- Have developed new interactive data dashboards that publicly release more Index data than ever before.

Central to the Index’s revision is our use of a purpose-built digital inclusion survey tool that was developed and is owned by the ADII team: the Australian Internet Usage Survey (AIUS).

Our 2021 reporting covers two years of data from the Australian Internet Usage Survey. The first is a baseline survey conducted between September and November 2020. The second is the 2021 data, collected between April and June of this year.

Key consequences of the Index revision

The new ADII results are not directly comparable to measures reported in previous Index reports. However, the digital inclusion dynamics we have documented follow the well-established contours of digital inclusion and exclusion charted in our earlier reports.

First Nations digital inclusion is a crucial issue but is difficult to accurately capture in the national survey approach that the ADII uses. The ADII draws on a national sample which does not provide sufficient First Nations respondents to generate reliable data. The Index therefore does not provide a score for First Nations populations.

Measuring digital inclusion within and across First Nations communities requires deep engagement with the communities themselves, their organisations, and leaders.

The Telstra-funded Mapping the Digital Gap project, now being conducted by the ARC Centre of Excellence for Automated Decision-Making and Society at RMIT University and led by Dr Daniel Featherstone, aims to make a significant contribution to the evidence base for First Nations digital inclusion. The project is working with 8-10 remote communities to generate First Nations Index scores and track changes in digital inclusion over a four-year period (2021-2024). It will also provide insights for local digital inclusion strategies and for measuring digital inclusion more broadly. We note, however, that the Mapping the Gap project will not provide sufficient data for the NIAA purposes.

Opportunities presented by the Index revision

We note that the data collection required for the Closing the Gap initiative is currently still under development.

Because the ADII team own the Australian Internet Usage Survey that underpins the revised Index, we are now able to partner with governments, organisations, and community groups to conduct bespoke digital inclusion research that generates comparable data to the national Index results.

This presents an opportunity for the Australian Internet Usage Survey to provide the data collection tool for the Closing the Gap Initiative. We note, however, that this will require significant additional resourcing and engagement to reach the required representative sample of First Nations peoples that includes remote, regional, and urban populations.

Appendix 3: ‘Mapping the Digital Gap’ Research Project

Mapping Digital Inclusion and Media Use for Informed Decision Making in Remote Aboriginal and Torres Strait Islander Communities

Background

Improving digital inclusion outcomes and access to services in remote Aboriginal and Torres Strait Islander communities is critically important for informed decision making and agency. People living in Australia’s 1100 remote Indigenous communities are likely to be among the most digitally excluded Australians. At the same time, they are required to interact with increasingly automated digital services in areas such health, education, and social services. Access to affordable communication services and accessible sources of news and information are also essential.

This equity gap has been recognised through a new Closing the Gap Target (2020, Target 17) for digital inclusion and access to relevant media services. Yet there is a lack of data to measure the digital gap in remote communities and how it is changing over time.

This project forms part of the research program of the ARC Centre of Excellence for Automated Decision-Making and Society, directed by Distinguished Professor Julian Thomas. The research is supported by a partnership with Telstra as part of its program of research into digital inclusion in Australia. This includes the Australian Digital Inclusion Index (ADII) study, which is also managed by the team at RMIT.

The ADII was created in 2015 to measure the nature and extent of digital inclusion experienced by Australian residents. Since 2016, the annual ADII reports and website have tracked digital inclusion over time, enabling identification of the demographic and geographic contours of digital inequality. The Index has been widely used by the not-for-profit and business sectors, and all tiers of government, resulting in significant impact on policy and practice.

Two recent ADII case studies found that people in remote communities often have extremely limited access to digital infrastructure and services and encounter very high costs for internet access, especially in relation to their income. On the other hand, some evidence also suggests higher levels of digital ability, underlining the importance and potential benefits of digital services for remote communities. These factors vary greatly from site to site, so more detailed analysis is needed to help close the gap on digital inclusion for Aboriginal and Torres Strait Islander people and communities.

About the project

The project involves working with 10-12 remote First Nations communities to develop local digital inclusion plans and measuring the change in levels of digital inclusion and media use within the community over a four-year period (2021-2024). Potential research sites will be identified based on criteria to ensure a diverse national sample, and selected communities will be offered the option of being involved in the project.

The research team will work closely with local and regional agencies to ensure the project adheres to local policies and cultural protocols, community trust and engagement, and to ensure the research addresses local needs and provides benefit to the community. We will work with local co-researchers on all community-based research as well as analysis of results.

Project Aims

The project aims to:

- (1) generate a detailed account of the distribution of digital inclusion and the uses of digital services including news and media across Indigenous communities
- (2) track changes in measures of digital inclusion for these communities over time, as well as a national survey to provide context to case study sites;
- (3) inform the development and evaluation of appropriate local strategies for improving digital inclusion capabilities and services enabling informed decision making in remote Indigenous communities.
- (4) Provide evidence to inform policy and program resourcing by government and industry aimed at closing the gap on digital inclusion for First Nations people and communities.

Research methods

Data will be gathered at each community through four methods:

1. Face-to-face surveys (annually) to measure digital inclusion and use of media and news services, with results tracked against national outcomes from the ADII Survey
2. Qualitative Ethnographic Action Research (including face-to-face interviews with community members and local agencies and observation of media and communications use)(annually)
3. Engagement with community agencies to develop local digital inclusion plans and monitor progress on implementation (following initial survey then ongoing)
4. Remote engagement between site visits (ongoing)

Research Team:

Dr Daniel Featherstone, RMIT - Lead Investigator
 Distinguished Professor Julian Thomas, RMIT - ADM=S Centre Director / Chief Investigator
 Dr Indigo Holcombe-James, RMIT - Co-investigator
 Dr Lyndon Ormond-Parker, RMIT - Co-investigator
 Dr Jenny Kennedy, RMIT - Co-investigator
 Lauren Ganley, Telstra - Partner investigator