



**Asia-Pacific
Economic Cooperation**

Case Studies on Indigenous Digital Inclusion

APEC Telecommunications and Information Working Group

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Executive Summary

Access to the Internet, telecommunications and digital technology is increasingly recognised as a fundamental aspect of social and economic opportunity. It determines whether and how individuals can engage as active citizens, participate socially, and access employment opportunities. Digital access is becoming an essential aspect of full participation in society. The economic and social benefits of ensuring equitable access and the skills to utilise technology are clear, and enable individuals to leverage digital platforms for personal and societal advancement.

However, many Indigenous communities globally continue to experience significant barriers to digital inclusion, contributing to a widening digital divide. Indigenous digital inclusion is underpinned by broader inequities including education, housing, power as well as equitable access to technology, affordable connectivity, digital literacy, and the ability to navigate digital spaces effectively. Addressing these factors enables a range of benefits, including increased economic participation, better access to online services like telehealth and education, and enhanced community engagement. Yet, the persistent lack of access for Indigenous Peoples underscores the urgent need for focused and culturally appropriate interventions.

Introduction

This report aims to highlight and share insights and experiences regarding Indigenous digital inclusion across APEC economies. This project and report invited APEC economies to share case studies on effective initiatives and policies aimed at bridging the digital divide for and by Indigenous Peoples. Central to this effort is the inclusion of Indigenous voices, with a focus on gathering recommendations from Indigenous leaders and participants on best practices and lived experiences. The case studies and insights in this report highlight actions, resources, and recommendations for advancing Indigenous digital inclusion from government level to private sector and community level.

This report explores the landscape of Indigenous digital inclusion, focusing on four dimensions: access, affordability, utilisation, and ability. By understanding these areas, the report provides a comprehensive understanding of the challenges and barriers that Indigenous communities face in achieving equitable digital participation. It also offers evidence and experience-based insights to show different approaches across economies whilst considering the social, economic, and geographic factors that shape digital experiences for Indigenous communities.

This report provides a synthesis of key insights and practical examples to enhance digital inclusion for Indigenous populations. By drawing from real-world case studies, it aims to support the creation of inclusive policies and initiatives that meet the unique needs of Indigenous communities and foster equitable access to digital opportunities worldwide.

Background:

Co-sponsored by Japan, Malaysia, Mexico, New Zealand, Papua New Guinea, the Philippines, Chinese Taipei and the United States, the Case Studies on Indigenous Digital Inclusion APEC TEL project held a capacity-building workshop in September 2024 in Mexico City, Mexico, in the margins of TEL69. The workshop presented case studies and promoted sharing of initiatives on Indigenous digital inclusion.



Pictured:

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Digital Divides

Many economies experience 'digital divides' where there is unequal access (differences in access between social groups) or inequitable access (differences in the ability to utilise technologies despite equal access between social groups) to digital technologies that may limit the ability of some groups to fully participate and engage in the digital environment. Limitations may include:

1. **Infrastructure:** Inadequate infrastructure can limit the availability of telecommunications technology, access to high-speed Internet or appropriate media and information, particularly in rural and remote areas.
2. **Economic Barriers:** The cost of devices, services and data, as well as updating or upgrading technologies, can present economic barriers to full participation and further exacerbate social and economic inequity for marginalised populations.
3. **Social and Cultural Barriers:** Differences in language, education, and cultural practices can make it difficult for some populations to engage with digital content and services. Additionally, older adults and individuals with disabilities may require tailored solutions to achieve digital inclusion.
4. **Rapid Technological Change:** The fast pace of technological advancement can make it difficult for people to stay up-to-date with new tools and platforms, especially without adequate support and training.

Digital Inclusion

Digital inclusion is the aspiration for equitable access and use of information and communication technologies (ICTs) for all individuals, regardless of their socio-economic status, geographical location, age, gender, or ability. The importance of digital inclusion has grown significantly in the 21st century as digital technologies have become integral to daily life through education, employment, healthcare, and social interaction. Digital inclusion comprises five core elements.

1. **Access to Technology:** The first and most fundamental component is ensuring that individuals have access to necessary digital devices (such as computers, smartphones, and tablets) and reliable Internet connections. Without these, people cannot participate in the digital world.
2. **Digital Literacy:** Having access to technology is insufficient without the skills to use it effectively. Digital literacy includes the ability to navigate the Internet, use software applications, protect personal information, and understand the ethical implications of digital interactions.
3. **Affordability:** Even when technology and Internet access are available, they must be affordable. High costs can be a significant barrier, especially for low-income populations, preventing them from accessing and utilising digital resources.
4. **Content and Services:** The availability of relevant content and services that meet the needs of diverse populations is crucial. This includes local-language content, accessibility features for persons with disabilities, and services that address the specific needs of different communities.
5. **Capabilities:** Training and ongoing support may be necessary to help individuals keep up with evolving technologies and address the challenges that they may

encounter. This can include formal education, community programs, and online resources.

Digital technology has transformed access to essential services, such as education and healthcare. In education, appropriate and equitable access to ICT can offer new ways of learning and accessing information. Students can benefit from online resources, remote learning opportunities, and educational tools across a wider geographic footprint. Telemedicine, online health resources, and digital health tools are also becoming increasingly important in providing healthcare services, especially in rural and remote locations or where there is limited access to specialist medical services.

Digital inclusion is essential for creating an equitable and inclusive society in the digital age. By addressing the challenges and focusing on the key components of digital inclusion, policymakers, businesses, and community organisations can work together to ensure that everyone benefits from the opportunities that digital technologies offer. Achieving digital inclusion requires a holistic approach, combining infrastructure development, education, and support systems tailored to the needs of diverse populations, including Indigenous Peoples.

Indigenous Peoples

The world is home to 370 million Indigenous Peoples across 70 economies.¹ Whether a people group, tribe, community or region is considered Indigenous is a decision for individual economies. Definition may consider self-identification, an enduring relationship with traditional and customary lands, territories and resources, cultural distinctiveness, the exercise of collective rights, the practice of self-governance through treaties and agreements, or through the attainment of statehood. Indigenous Peoples may self-identify as the descendants of populations who inhabited a geographical region at colonisation,² or be defined in other ways relevant to their specific context or cultural beliefs. Some Tribal Peoples may identify as Indigenous Peoples due to their unique social, cultural and economic character, which may distinguish them from other sections of the economy-wide community. Indigenous Peoples may retain some or all of their own social, economic, cultural and political institutions, irrespective of their legal status.

Indigenous Digital Inclusion

Indigenous digital inclusion is essential for enhancing the economic, social, and cultural well-being of Indigenous communities while protecting their unique identities and rights. Indigenous communities and populations are often on the far side of the digital divide due to potential geographic isolation and social and economic circumstances. Indigenous digital inclusion is the range of measures seeking to address inequity in telecommunications and Internet access, knowledge of digital technology

¹ Asia's Indigenous Peoples, 2014. Asian Century Institute. Available: <https://asiancenturyinstitute.com/society/804-asia-s-indigenous-peoples>

² The rights of indigenous peoples in Asia, 2017. International Labor Organization. Available: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---gender/documents/publication/wcms_545484.pdf

and devices, access to government and essential services online, and access to culturally relevant media and information services.³ Economies may take different approaches to defining and addressing Indigenous digital inclusion relevant to the context of Indigenous Peoples, economic capacity, infrastructure and distance. There are three dimensions that may drive Indigenous digital inequity and should be addressed to increase social and economic participation for Indigenous Peoples⁴ and a fourth dimension on how inclusion can stimulate utilisation where barriers are addressed. These dimensions are access, affordability, digital ability and utilisation.

- **Access** – a dimension concerning the types of digital connections and devices available, and how frequently they are used to get online. Access may be measured by: speed and data allowance, intensity and frequency of access, connection type and device.
- **Affordability** – a dimension considering the financial means needed for a household to get online. Affordability may be measured as the percentage of household income required to purchase reliable quality Internet access.
- **Digital ability** – a dimension concerning the digital skills, knowledge and confidence needed to use the Internet safely. Measures for ability are specific to individual and community contexts, but may consider digital literacy, awareness and online safety.
- **Utilisation** – presents a fourth dimension for Indigenous digital inclusion. Social services, education and healthcare reach can be enhanced, particularly for populations in rural and remote areas, where populations have improved access, affordability and digital ability. Indigenous Peoples may also benefit through the creation of new markets, opportunities to store, share and promote histories and knowledge, and greater opportunities for civic engagement.

Indigenous Leadership

Indigenous leadership plays an important role for digital inclusion as it brings perspectives that ensure digital solutions respect and serve Indigenous communities in a culturally relevant and therefore more effective way. Indigenous leaders across economies advocate for digital access, affordability, utilisation and inclusion whilst staying true to cultural preservation and inclusion. The inclusion of Indigenous leaders at a level of influence is important. It ensures that the voices of Indigenous Peoples are elevated, and that there are activities in place to support further inclusion. Australia has created a First Nations Digital Advisory Group to support Indigenous Digital Inclusion domestically.

³ First Nations Digital Inclusion Plan, 2023. Commonwealth of Australia. Available: https://www.niaa.gov.au/sites/default/files/documents/publications/first-nations-digital-inclusion-plan-2023-2026_0.pdf

⁴ Discussion Paper: First Nations digital inclusion roadmap, 2024. First Nations Digital Inclusion Advisory Group. Available: <https://www.infrastructure.gov.au/sites/default/files/documents/roadmap-discussion-paper.pdf>

Case Study 1 Aboriginal and Torres Strait Islander Leadership in Digital Inclusion



Back row: Mr Che Cockatoo-Collins, Mr Neil Turner, Dr Daniel Featherstone, Associate Professor Lyndon Ormond-Parker and Dr Scott Winch.

Front row: Ms Lauren Ganley, The Hon Michelle Rowland MP, Ms Dot West (OAM) and Ms Talei Elu.

Australia's digital transformation is reshaping almost every aspect of society, from healthcare to education and economic development. However, the benefits of this transformation have not been equitably shared, especially for Aboriginal and Torres Strait Islander Peoples. Addressing this disparity is critical to achieving inclusive growth and ensuring all Australians have fair access to the benefits of technology. To address this disparity, Australia has established a First Nations Digital Inclusion Advisory Group. This Group plays a key role in providing advice on closing the digital gap, providing First Nations leadership, knowledge and perspectives to ensure digital policies and initiatives are inclusive, relevant, and culturally respectful.

The First Nations Digital Inclusion Advisory Group ensures that Indigenous voices are at the forefront of Australia's digital transformation. Comprised of Indigenous leaders, experts, and community representatives, this advisory body provides critical insights into digital inclusion barriers and ways to support culturally appropriate and place-based solutions. By leveraging Indigenous knowledge and experience, the group advocates for policies that honour data sovereignty, cultural sensitivity, and community-led technology adoption.

The Group works closely with communities to hear their views on digital inclusion and to understand local needs and priorities. They draw on the best evidence of what works and use this information to provide advice to the Minister for Communications, with the goal of Aboriginal and Torres Strait Islander Peoples having equal levels of digital inclusion by 2026.

Section 1: Access

Access can be defined in a number of ways and its measurement can be dependent on economies' social, geographical and economic context. In Australia, appropriate and adequate access is defined around a reliable Internet connection, the kinds of devices available and used by households and the frequency of online access⁵. These aspects are measured according to four variables.

1. Frequency and intensity of use, ranging from no use at all to daily use
2. Connection type, such as fixed broadband or mobile-only
3. Data allowance and speed
4. Types of devices, including desktops, laptops, smart phones, tablets, and an array of smart home devices

A typical individual with a high access score has:

- high frequency and intensity of use
- fixed broadband
- fast and unlimited data allowances
- access via a range of devices.

Adequate infrastructure, as well as appropriate spectrum availability, provide the foundations for increasing availability for Indigenous communities and promoting equitable access and reducing the digital divide.

Infrastructure Investments

Wired telecommunications and broadband networks play a key role in delivering consistent and reliable Internet access. Wired services provide faster and more reliable information and data across a longer distance and are a critical component in broadband access to reliable Internet and telecommunications connectivity. Indigenous communities in rural and remote locations may be beyond the reach of traditional wired infrastructure and special investments and access would need to be facilitated to bridge the digital divide in those locations. Solutions may include innovations and alternative technologies to enable wireless access for remote locations.

Recommendation 1

Promote both public and private sector investments which encourage and incentivise the extending of telecommunications and broadband infrastructure in rural and remote areas and improve access for Indigenous Peoples.

⁵ Measuring Australia's Digital Divide: Australian Digital Inclusion Index: 2023. ARC Centre of Excellence for Automated Decision-Making and Society. Available: <https://www.digitalinclusionindex.org.au/the-adii/>

Case Study 2 Marae Connectivity in Te Reinga, New Zealand

The Marae Digital Connectivity Programme is enhancing broadband access for Marae across New Zealand, connecting Māori communities with high-speed Internet. As of June 2024, 661 out of 877 eligible Marae have broadband installed under this initiative, using a range of technologies such as fibre and wireless solutions tailored to each Marae's needs.



Through this programme, Te Reinga Marae secured support to upgrade its Internet services, which were previously limited in speed and unable to fully support remote learning or teleconferencing demands. Although initially ineligible for the programme because it already had Internet access, Te Reinga Marae applied successfully for funding to enhance its connectivity, addressing growing digital needs.

Following the application's approval, Te Reinga Marae received several key upgrades. These included new-generation microwave equipment, dual-band high-power WiFi, an upgraded repeater with improved solar and battery capabilities, licensed backhaul, and upgraded access points



Te Reinga repeater



Marae Wifi



Marae rooftop antennae

The impact of these upgrades has been profound. Community members report improved communication with Whānau (family) both within New Zealand and overseas. Additionally, the enhanced connectivity has enabled reliable phone coverage, the use of security cameras, and broader digital access, empowering the community to stay connected and fully engage in the digital world

Spectrum Access

Spectrum access underpins wireless telecommunications and Internet, especially for communication technologies and smart devices that utilise frequencies for the exchange of information and data.⁶ Improving the access to spectrum for Indigenous communities can provide greater access to high-speed wireless Internet for communities that are isolated from existing infrastructure, enable Indigenous-led connectivity solutions that meet the specific needs of Indigenous communities.⁷

Case Study 3 Spectrum Access for First Nations Communities in the United States

The United States Government is making progress improving spectrum access for Native American communities, specifically through initiatives that grant tribes control over their telecommunication resources and support broadband deployment on tribal lands.

The Federal Communications Commission introduced the Rural Tribal Priority Window,⁸ allowing federally recognised tribes to apply for licenses to unassigned spectrum in 2.5 GHz. This spectrum is key in expanding Internet access and has already facilitated broadband growth across tribal areas. By including Native communities in spectrum ownership, it helps promote self-determination in digital management and encourages economic growth through increased Internet access.

The impact of these initiatives is notable with over 300 communities having improved spectrum access, resulting in expanded broadband connectivity for tens of thousands of tribal members. This has increased access to services including telemedicine, education and remote job opportunities. In turn, access to spectrum has created more competitive pricing within tribal regions, as new local Internet providers emerge and offer affordable rates tailored to tribal needs. In addition, the United States has committed \$65 billion USD through the Bipartisan Infrastructure Law to address the digital divide in a number of underserved areas. The Departments of Commerce and the Interior are coordinating to ensure that federal support aligns with tribal needs, and a new Office of Indigenous Communications and Technology (OICT) is set to provide technical assistance to tribes for wireless and broadband projects. These efforts signify a broader commitment to equitable access and long-term digital infrastructure on tribal lands.

By strengthening tribal Internet access, not only is digital inclusion advanced, but also tribal self-sufficiency in managing technological resources. These programs are a critical step toward communities leveraging Internet access for future long-term economic resilience and cultural preservation.

⁶ Spectrum, 2024. Commonwealth of Australia. Available: <https://www.infrastructure.gov.au/media-communications-arts/spectrum>

⁷ Spectrum and the Indigenous Priority Window, 2024. Government of Canada. Available: <https://ised-isde.canada.ca/site/spectrum-management-telecommunications/en/spectrum-allocation/spectrum-and-indigenous-priority-window>

⁸ Rural Tribal Window Updates, 2024. United States Federal Communications Commission (FCC). Available: <https://www.fcc.gov/rural-tribal-window-updates>

Recommendation 2

Increase the availability of spectrum licensing for Indigenous communities (whether directly or via partnerships and collaborations) and provide the economic support or incentives required to support Indigenous investments in spectrum access.

Internet Connectivity and Speed

Internet reliability, speed and bandwidth are crucial to the operability of smart devices and for accessing online services and platforms. A reliable Internet connection can provide access to online resources, services, and enable economic participation. High speed broadband Internet also enables greater access to media and information services for Indigenous communities, including enabling platforms for Indigenous media. Indigenous communities, particularly those in remote areas, may have limited access to reliable, fast and cost-effective Internet services.

Case Study 4 Canada's Universal Broadband Fund

Canada's Universal Broadband Fund (UBF) represents a transformative effort in increasing Internet access and quality for First Nations and rural communities. UBF is a large-scale initiative aiming to provide high-speed Internet access domestically, specifically targeting rural and Indigenous communities. Launched in 2020 with an initial budget of CAD\$1.75 billion, the fund was later increased to CAD\$3.225 billion, showcasing the Canadian government's commitment to improving connectivity. The program has facilitated hundreds of projects aimed at underserved areas, contributing to Canada's goal for 98% of households by 2026 and 100% by 2030 to have access to high-speed broadband Internet.

UBF plays a critical role in closing the digital gap and supporting sustainable development across Canada by improving the speed and costs of Internet services and supporting socio-economic opportunities. Indigenous communities have been a focus, with several projects tailored to their unique geographical and connectivity challenges in Canada. The Fund has increased access to reliable, high-speed Internet, essential for economic and social opportunities for a number of First Nations communities. For example, the Rapid Response Stream of the UBF has quickly connected 9,000 Indigenous households with enhanced broadband access, supporting critical services like telehealth, online education, and remote work. Specific communities, such as the Wahnapiatae First Nation, now have high-speed Internet access, which has enabled local growth through job creation and business opportunities. Improved connectivity has also allowed First Nations communities to participate in the digital economy and access essential government services, addressing some of the social, economic and geographic inequity experienced by those communities.

The UBF look beyond access alone and sets specific markers for improved broadband speeds as well. A minimum speed of 50 Mbps download and 10 Mbps upload are key program targets and considered critical benchmarks for modern digital access. In isolated regions, the UBF has provided communities with fiber-optic connections and other infrastructure upgrades, resulting in faster, more reliable connections. This

improved speed supports diverse online activities and benefits community health centers, schools, and small businesses, which depend on stable Internet for daily operations and outreach.

Internet services are also more affordable for First Nations communities as a result of the UBF. Indigenous communities can work with regional providers to negotiate competitive rates as a result of UBFs infrastructure investments, which was previously not viable for small populations and remote geographic locations. First Nations communities can, as a result, access high speed Internet services at much lower prices, and is reducing the digital divide for low-income households and those in remote areas with limited financial resources.

Recommendation 3

Provide support or incentivise community-led digital initiatives and partner with local Indigenous organisations to identify and enable culturally appropriate solutions that increase access to reliable Internet services.

Indigenous Media

Access to media is often reliant on access to high-speed Internet and devices including mobile phones, computers and radios. Media organisations, especially those which are Indigenous-led, have had to adapt to enable greater access to online content and social media platforms. Indigenous media is important in showcasing Indigenous culture and stories, sharing knowledge and raising awareness for important issues. Indigenous media often connects people with news and information about their communities, other communities and the world, and enriches societies with diverse content and engages Indigenous Peoples in public debates and conversations.

“Media established and run by Indigenous Peoples can provide access to timely and accurate information, tackling global challenges such as poverty, climate change or health crisis, and contributing to dialogue for peace and stability in the world.”⁹

Case Study 5 New Horizons in First Nations Media Through Digital Technology and Access in Australia



⁹ Creating an enabling environment for free and independent indigenous community media, 2023. UNESCO, Available: <https://www.unesco.org/en/articles/unesco-report-free-and-independent-indigenous-media>

First Nations Media Australia (FNMA) has been instrumental in utilising digital technology to amplify Indigenous voices, fostering cultural exchange and promoting community-specific content across Australia.

Through various programs, FNMA partners with telecommunications and digital platforms to enhance broadcasting capabilities and broaden community access to Indigenous media. One notable initiative, the *inDigiMOB* program, launched with the support of Telecommunications organisation Telstra. The program focused on digital inclusion in remote communities and trained local digital mentors who offered workshops on Internet use, online safety, and digital literacy, addressing unique community needs while making digital content more accessible.

Digital content platforms such as YouTube and social media have played a significant role in expanding the reach of First Nations broadcasters, enabling them to share culturally significant content such as language programs, community news, storytelling, music, and cultural education with audiences across Australia and beyond. This access to new digital spaces has allowed Indigenous broadcasters to connect with broader audiences and introduce innovative programming that celebrates Indigenous culture and addresses contemporary issues. While these popular platforms help share Indigenous stories more widely, initiatives like [IndigiTUBE](#), an initiative of First Nations Media Australia (FNMA), focus specifically on Indigenous voices. IndigiTUBE serves as an online platform exclusively dedicated to Indigenous-led content, showcasing music, podcasts, documentaries, and films.

By supporting Indigenous Peoples and communities to grow their digital skills, FNMA and its partners are creating avenues for both cultural preservation and economic empowerment, laying the groundwork for a digitally inclusive future whilst also strengthening the foundations for Indigenous-led storytelling and representation in the digital era.

Case Study 6 The Promotion and Development Program of Community and Indigenous Radio Broadcasting in Mexico (ProRadio)

ProRadio promotes community and Indigenous radio and telecommunications networks through joint actions that guarantee support for those interested in acquiring, operating and managing media that promote plurality and diversity of content. Through ProRadio, the Federal Telecommunications Institute, in partnership with the National Institute of Indigenous Peoples (INPI, by its Spanish acronym), strives to build strong connections and provide support to individuals from Indigenous and Afro-Mexican groups. The initiative aims to eliminate regulatory, administrative, communication, and economic barriers. In addition, it generates certainty that the projects are viable and can be developed for cultural, educational, language preservation and customs conservation purposes, through in-person visits by public officials of the Institute to the communities and online consultations. Since the beginning of the Program in 2019, 28 states of Mexico have been engaged through visits, specific advice, webinars and requests received. Historically, the Institute has granted 683 social use concessions for telecommunications (25) and broadcasting

(658).¹⁰ With these activities, the Institute is committed to serving Indigenous communities to support them in obtaining a broadcasting or telecommunications concession, thus helping to preserve the culture, language and customs of each region.

The following are examples of community-led network initiatives implemented across various regions of Mexico:

- **Chihuahua, Rarámuri community:** The Rarámuri, are the Indigenous People with the largest population in Chihuahua who are semi-nomadic and live together on large tracts of land. With limited financial resources and remote living, it is difficult to cover the cost of connectivity. With the support of Rhizomática, as well as other organisations in the region such as Comunarr, two communication points with HF radio were installed in the communities of San Luis Majimachi and Creel, in the exchange centers of the Centro de Desarrollo Alternativo Indígena AC (CEDAIN, for its acronym in Spanish). The communities, group in these centres, turn on the equipment at a set time and tune into the channel provided for communication, in which provides notices about health, emergencies, exchange, among others, are transmitted.
- **Chiapas, Jnoptik Intrabach:** Jnoptik intrabach is a school intranet network for high school students in the community of Abasolo, Ocosingo, Chiapas, which helps meet educational needs without depending on the Internet and its costs. This project began in 2009, through the work of Professor Luis Ramón and his students, who created their own network using government donated computer equipment. The students learnt about software, created content in their native language Tzeltal, and installed their own server on GNU-Linux. Later, this network became a collective that, together with the community, developed a community learning centre with community radio, a physical library and the Internet.
- **Virtual Mobile Operators Wiki Katat and TIC-OMV, Northern Sierra of Puebla and Oaxaca:** Virtual mobile operators (VMO) were created in 2019 in Mexico, in collaboration with organisations such as Telecomunicaciones Indígenas Comunitarias (TIC AC), Rhizomática and Redes por la Diversidad, Equidad y Sustentabilidad A.C. (REDES A.C.) and with the subsequent involvement of the company ALTAN Redes, in charge of the construction and operation of the Red Compartida. In 2021, ALTAN Redes began to work together with TIC AC, who obtained a license on the 4G spectrum, for which ALTAN's infrastructure was used through a virtual mobile operator. The first project implemented was in Oaxaca, through the participation of Radio Tosepan Limaxtum, radio of the Alliance of Cooperatives Tosepan Titataniske, a cooperative and indigenous movement with a presence in at least 37 municipalities in the north of Puebla

¹⁰ The IFT announces the third stage of the Program for the Promotion and Promotion of Community and Indigenous Radio Broadcasting (Pro Radio 2024). 2024. Instituto Federal de Telecomunicaciones (IFT), Available: <https://www.ift.org.mx/comunicacion-y-medios/comunicados-ift/es/el-ift-anuncia-la-tercera-etapa-del-programa-de-promocion-y-fomento-de-la-radiodifusion-comunitaria>

and Veracruz. Located in Cuetzalan del Progreso, Puebla, the Wiki Katat project (“Come, Come” in Nahuatl and Totonaco languages) began marketing mobile telephony and Internet with a community focus, through the sale of SIM cards and access to the 4.5 G network. Currently, the VMO-SC has presence in the states of Puebla, Oaxaca, Mexico City, Chihuahua, Chiapas, State of Mexico and Veracruz, with more than 3000 users.

Recommendation 4

Support Indigenous communities to amplify and promote Indigenous voices, stories and culture, through appropriate Indigenous-led and -owned digital and traditional media services.

Section 2: Affordability

As digital services evolve and become more embedded in social, economic and cultural life, the ability to afford a reliable, quality Internet connection and the devices required for social participation has never been more critical.¹¹ High costs for Internet access can exacerbate the digital divide and drive inequity for Indigenous communities. Households should be able to afford a fast, quality and uninterrupted connection that allows enough data to meet essential information needs across digital devices and platforms in the home. An affordable Internet service can be measured by considering the percentage of household income required to gain good quality Internet service with uninterrupted connectivity.

The cost of accessing quality and reliable Internet services should not compromise the capacity of a standard household to pay for other essential household items. Households that face Internet affordability stress are more likely to connect to an inferior service that does not fully meet the needs of the household, thus widening the digital divide for some families. An equitable and inclusive digital environment would not place financial stress on households seeking basic access to the Internet relevant to the norms of each economy.

Measurement of affordability is contextual, and each economy will have an appropriate measure to determine to what degree their population has access to reliable, appropriate and affordable Internet services. For example, in some economies, Internet services can be considered unaffordable where they cost more than 5% of household income.¹²

¹¹ Case study: Breaking the inequality cycle – Examining affordability barriers to digital inclusion, 2023. ARC Centre of Excellence for Automated Decision-Making and Society. Available: <https://www.digitalinclusionindex.org.au/case-study-breaking-the-inequality-cycle-examining-affordability-barriers-to-digital-inclusion/>

¹² Measuring Australia’s Digital Divide: Australian Digital Inclusion Index: 2023. ARC Centre of Excellence for Automated Decision-Making and Society. Available: <https://www.digitalinclusionindex.org.au/the-adii/>

Communication Services

Affordable communication services are critical for digital inclusion.¹³ Communications services can include radio, wired home phones services, wireless cellular and mobile services and online voice and video communications technologies. Indigenous communities, particularly those in rural and remote locations, often rely on telecommunications services to stay connected and access essential services and support. However, these services can be expensive, unreliable or restricted in these locations. Bridging the digital divide requires addressing the affordability of reliable and affordable telecommunications for Indigenous communities.

Case Study 7 Affordable and accessible communication service: Free payphones across Australia

Payphones have been a part of the Australian telecommunications landscape since the 1880s. The number of payphones across Australia has decreased over the years due to the use of mobile technology but the importance of payphones is known now more than ever.

Telecommunications provider Telstra announced in 2022 that they would make all payphones in Australia free of charge and acknowledged the importance of phone access particularly during natural disasters or vulnerable circumstances, particularly for remote Indigenous communities.¹⁴



Internet Services and Data

Affordable Internet services enable equitable access to the benefits and economic opportunities provided in digital spaces. Ensuring that all households have access to reliable and affordable Internet is critical in creating an equitable and inclusive digital world. As connectivity becomes a necessity, households are likely to pay for connectivity regardless of income or demographic characteristics. Without affordable services, people may be shut out from accessing telecommunications services and the subsequent social and economic benefit.¹⁵ Indigenous communities experience a large digital divide with respect to affordable and reliable Internet connectivity. For example, only 24% of Indigenous communities in Canada have access to affordable

¹³ Affordability of communications services, 2024. Commonwealth of Australia. Available: <https://www.infrastructure.gov.au/research-data/bureau-communications-arts-and-regional-research/communications/affordability-communications-services>

¹⁴ Payphones Free for Calls Australia. 2022. Telstra, Available: <https://www.telstra.com.au/exchange/payphones-free-for-calls-australia>

¹⁵ Telecommunications affordability and access for First Nations households: Learnings from the HILDA survey Working paper, 2024. Commonwealth of Australia. Available: <https://www.infrastructure.gov.au/sites/default/files/documents/telco-affordability-access-first-nations-households-june-2024-hilda.pdf>

and reliable Internet services.¹⁶ Overcoming this barrier is foundational to achieving digital inclusion for Indigenous communities.

Case Study 8 Access and Affordability of Telecommunication and Internet Services in Papua New Guinea

The case of Papua New Guinea (PNG)'s mobile Internet market reflects the complex dynamics between infrastructure investments, market competition, and consumer affordability in developing economies. PNG struggles with low average incomes and both rural and urban poverty. Many households spend a considerable portion of their income on basic necessities, leaving little funds for telecommunications. The cost of mobile data is also disproportionately high compared to average earnings, which drives the digital divide that limits access to essential services, particularly for lower-income rural and urban populations.

PNG saw a rapid expansion of its mobile network infrastructure over the past two decades, particularly the rollout of 4G and LTE mobile broadband services. Mobile penetration in PNG increased from 2% in 2006 to 34% in 2011,¹⁷ where it has remained steady. This increased access to mobile technology in PNG transformed communication, allowing greater access to information and services to a wider proportion of the population. The gains were not limited to urban areas, with rural areas also experiencing increased connectivity along with expanded access to entertainment, social media and news services. However, for much of that decade the price of Internet and communications remained a barrier for many in PNG, with a clear digital divide between urban and rural/remote areas. PNG's rugged terrain and dispersed population presented unique challenges for telecommunications providers in expanding coverage, which had a cost implication and was reflected in consumer pricing.

The expansion of the ICT market is strongly influenced by income levels and hence affordability of services. While progress has been significant, several challenges continue to hinder the effective functioning and growth of the sector. These include:

1. Challenges in Enforcing Rules, Regulations, and Licence Conditions

Legacy issues, coupled with frequent changes in government-owned ICT service providers, have created barriers to consistent enforcement of regulations. These changes often disrupt continuity and institutional memory, making it difficult to maintain regulatory effectiveness over time.

¹⁶ Supporting Indigenous connectivity in Canada, 2023. Internet Society. Available: <https://www.Internetsociety.org/blog/2022/11/supporting-indigenous-connectivity-in-canada/>

¹⁷ Digital Islands: How the Pacific revolution is changing the region, 2012. Lowy Institute. Available: <https://www.lowyinstitute.org/archive/digital-islands-how-pacific-ict-revolution-transforming-region>

2. Capacity and Manpower Limitations

Regulatory bodies face challenges due to a lack of adequate human resources and expertise. This results in delays in executing critical regulatory interventions, which can impact market stability and consumer protection.

3. Ambiguity in the Regulatory Framework

A lack of clarity in the regulatory framework creates uncertainty for stakeholders, including service providers and consumers. This ambiguity can lead to misinterpretations, inconsistent application of regulations, and challenges in fostering a competitive environment.

4. Impact of Legislative Changes on Regulatory Functions

Frequent amendments to legislation governing the ICT sector can disrupt regulatory processes. These changes may lead to overlapping mandates, inefficiencies, and delays in implementing necessary reforms.

Efforts to address these challenges are currently underway. One key initiative is the comprehensive review of the National Information and Communications Technology Act (NICT Act). This review aims to modernise the legislative framework, enhance regulatory clarity, and strengthen enforcement mechanisms to create a more robust and adaptive ICT market. By tackling these issues, the ICT sector can better support innovation, economic development, and accessibility while aligning with broader policy goals.

In 2020, a series of market interventions enabled the price of mobile and Internet services to be significantly reduced across the economy (most notably in urban areas, but commensurate reductions also occurred in rural areas too). The factors contributing to this rapid increase in mobile Internet and communications affordability were:

- 1) diversification of the mobile communications market with the entry of Vodafone as the third main telecommunications provider in Papua New Guinea, and
- 2) connection of the Coral Sea Cable, a 4,700 km fiber-optic submarine telecommunications cable linking Papua New Guinea and Solomon Islands to Australia.

The Coral Sea Cable promised to drive price reductions, but a complex arrangement between wholesale and retail providers diminished much of the gains possible through the major infrastructure investment. This highlights a key challenge in infrastructure development—while it is essential for long-term improvements in Internet quality and availability, the benefits may not immediately translate into cost reductions for end-users, especially if competition among service providers is limited. Regulatory efforts have been focused on capping of the wholesale access pricing to incentivising operators to maximise the use of submarine cables while maintaining adequate redundancy measures. However, this may not improve the uptake of the cable services in the short term due to number of reasons:

- Inadequate broadband coverage to drive customer demand for increased international broadband capacity.
- Consumers not having enough disposable income for ICT broadband services.
- QoS which are below internationally accepted standards, and not available in urban areas, even to people with sufficient disposable income.
- Operators are not buying sufficient submarine cable capacity, thus resulting in reduced QoS at the retail end.

By fostering greater adoption of submarine cable networks, the ICT market can achieve better affordability, higher service quality, and enhanced resilience, benefiting consumers and driving broader digital transformation.

Increased market competition has proved to be the main driver for reducing mobile and Internet services for the majority of people in PNG. The entrance of Vodafone has been pivotal in reshaping the competitive landscape. Vodafone's involvement in PNG's market has been significant in not only in increasing consumer choice but also in challenging the existing operators, Digicel and Telekom to adjust their pricing strategies. The reduction in prices is an encouraging trend, but more targeted policies or market reforms might be necessary to address the needs of lower-income groups. For example, limitations imposed by providers like Digicel, particularly the time-of-day restrictions on data usage, illustrate how pricing models can still present barriers to equitable Internet access. This is due to complex pricing structures exacerbate affordability, particularly for the lower-income users who rely on cheaper, but lower value, bundles and irregular access. Potential initiatives could include subsidies, price caps, or regulatory interventions designed to ensure that essential services like Internet access are within reach for more of the population.

Papua New Guinea has demonstrated the potential for market competition to reduce consumer pricing and affordability of communications and Internet services. However, it also demonstrates that a degree of regulation and policy intervention is needed to ensure that gains in affordability are equitably shared and can translate into broader access, especially for disadvantaged groups.

Recommendation 5

Implement or expand initiatives across the economy which promote and incentivise equitable, lower-cost access to reliable communications and broadband services for Indigenous Peoples

Section 3: Digital Ability

Digital ability is the capability to access, manage, understand, integrate, communicate, evaluate and create information safely and appropriately through digital technologies. Digital abilities enable greater access to online health, education and other social services, civic engagement and can support employment and entrepreneurship. It may enable Indigenous Peoples and communities to connect with each other, drive innovations to support and promote Indigenous knowledges and culture.¹⁸ Digital

¹⁸ A Global Framework of Reference on Digital Literacy Skills, 2018. UNESCO Institute for Statistics.

ability increasingly includes cyber security, online safety and awareness in recognition of new and emerging risks posed through greater access to digital technologies, connectivity and social media.¹⁹

Digital ability may refer to computer and ICT literacy, information literacy and media literacy and measures of skill levels consider what people are able to do online, and their confidence in doing it. Specific measures may include:

- **Basic** – the ability to download and open files, connect to the Internet, and set passwords.
- **Advanced** – the ability to save to the cloud, determine what is safe to download, customise devices and connections, and adjust privacy settings.
- **Information navigation** – proficiency in searching and navigating, verifying trustworthy information, and managing third party data collection.
- **Social** – knowing what is appropriate and safe to share, how to share information online and through which platforms, and who you should share information with; managing and monitoring contacts; and communicating with others.
- **Creative** – ability to edit, produce, and post content, and having a broad understanding of the rules that may apply to these activities.
- **Automation** – connecting, operating, and managing smart devices and Internet of Things technologies.

Case Study 9 Enabling Public Internet Access in First Nations Libraries

The United States Government, through programs like the National Telecommunications and Information Administration's (NTIA), Tribal Broadband Connectivity Program (TBCP) and the US Department of Agriculture (USDA)'s ReConnect Program, have been actively working to expand Internet access within Native American communities. The TBCP, part of the broader "Internet for All" national government initiative, allocates close to US\$3 billion for high-speed Internet projects, aiming to bridge the digital divide on tribal lands.

These efforts are substantial, with 42,268 unserved Native households already gaining connectivity through awarded grants, improving access not only for individual homes but also for critical community centres like schools, libraries, and healthcare facilities. Additionally, this project has created over 1,000 new jobs in the areas of broadband infrastructure and digital services, providing lasting economic benefits to these communities.

The aim of the schools and libraries programs in the United States is generally two-fold: it addresses both infrastructure needs and the digital literacy gap for tribal communities in the United States. With new connectivity options, tribal libraries and schools have implemented programs to enhance digital literacy, helping community members utilise the Internet for educational, vocational, and personal needs. For example, schools and community centres often provide workshops on digital skills to

¹⁹ What we heard report: Indigenous online safety, 2024. Government of Canada. Available: <https://www.canada.ca/en/canadian-heritage/campaigns/harmful-online-content/what-we-heard-online-safety.html>

help residents navigate online resources effectively, thereby promoting digital independence.

However, the initiative faces challenges, including digital literacy deficits that can limit the effective use of new Internet services. To address this, the TBCP partners with local educational institutions to offer training that covers fundamental digital skills, such as Internet navigation, online safety, and proficiency in commonly used applications. These programs are essential for increasing the effectiveness of the infrastructure investments, as they ensure that communities not only have access to the Internet but can also maximise its potential for education, healthcare, and economic opportunities.

Altogether, the TBCP and related broadband initiatives represent a transformative investment in tribal communities. By combining infrastructure deployment, cost-saving measures, and digital literacy training, the program provides both immediate and long-term benefits. While still expanding, the program demonstrates that targeted governmental support, when paired with educational and training initiatives, can yield substantial improvements in digital equity for marginalised communities.

Digital Literacy

Digital literacy is a standard of competency in the effective use of digital tools, such as computers, smartphones, and the Internet. These skills enable Indigenous Peoples to identify which digital technologies can meet their individual and collective needs, enhance their ability to interact and engage safely in online spaces, and may stimulate or promote innovation and enterprise.

Online Safety

Indigenous communities are increasingly using digital platforms to connect with each other and the global community, share and preserve their cultural heritage, promote civic and community engagement, and conduct business. Indigenous Peoples may also be vulnerable to data breaches, online fraud, and exploitation as online interactivity increases. Awareness of online safety practices, such as using strong passwords and recognising phishing attempts, helps protect individuals and communities from cyberattacks and malicious online activity and fraud. Indigenous communities can reduce their vulnerability and protect their digital identities by promoting the importance of cybersecurity and online safety, being aware of potential threats and being supported to build their skills to engage and connect safely. Indigenous Peoples should feel confident and safe to engage in digital spaces and benefit from the opportunities enabled through digital technologies.

Recommendation 6

Expand the availability of programs or initiatives that build digital awareness and capabilities in digital literacy and online safety that are specifically designed to meet the needs of Indigenous Peoples and communities.

Section 4: Utilisation

Social support services, such as health, education and employment services, increasingly rely on digital technologies. For Indigenous populations in rural and remote localities, digital services availability may address other inequities by increasing access to essential services and support. Virtual care and telehealth services are enabling improved access to Indigenous Peoples living in remote or underserved areas by broadening the range of services available and extending the hours of clinic operations²⁰. Access to online resources, digital learning platforms, and virtual classrooms helps bridge educational disparities, while digital tools can support the integration of Indigenous knowledge and languages into the curriculum, making education more relevant and culturally sensitive.²¹

Digital inclusion can also enable Indigenous economic development by providing access to digital tools and platforms, Indigenous entrepreneurs can reach broader markets, develop innovative business models, and improve practices in areas such as agriculture. For example, e-commerce platforms allow Indigenous artisans to sell traditional crafts globally, thereby supporting and growing local economies. Digital technologies may also offer a means for preserving and promoting Indigenous languages, traditions, and knowledge. Online platforms, social media, and digital archives can enable Indigenous communities to document and share their cultural heritage and enable knowledge and histories to be preserved for future generations. Innovations in digital storytelling and virtual reality may provide innovative ways to educate others about Indigenous cultures.

Civic engagement for Indigenous communities can also be enhanced through the increased connectivity and access to information and media. Access to digital platforms can enable Indigenous Peoples to advocate for their rights, engage in policy discussions, and connect and develop broader networks with both Indigenous and non-Indigenous communities. Indigenous voices, culture, knowledge and contemporary issues can be amplified in local and international forums through social media and Indigenous media services.

Healthcare

Healthcare services can be enhanced through digital and communication technologies that enable remote consultations, telemedicine and access to online health resources. Digital healthcare services and information is particularly beneficial for rural and remote communities and supports increased health equity for marginalised and Indigenous populations. Individuals can connect with healthcare providers, schedule appointments, and receive medical advice without needing to travel long distances, but this access relies heavily on adequate and appropriate Internet access and digital literacy. Digital technology may also provide better access to healthcare services and

²⁰ National Digital Health Strategy, 2023. Commonwealth of Australia. Available: <https://www.digitalhealth.gov.au/national-digital-health-strategy/outcomes/inclusive>

²¹ Digital Inclusion Plan, 2023. Commonwealth of Australia. Available: <https://www.niaa.gov.au/resource-centre/first-nations-digital-inclusion-plan-2023-26>

support for people living with disability. Digital tools can improve patient management through portable patient records, digital patient information, health and patient data management and reporting, payment, insurance and subsidised care platforms, access to health information and equipping patients with more tools to manage their own health.

Education

Education has benefited greatly from the global transition towards digital technologies. Students now have better access to a new range of educational tools and the connectivity needed to fully utilise those tools and engage in online learning. There is a wealth of information available online through teaching and learning resources and online libraries. For students in rural and remote settings, or where there is limited education available, digital learning can be facilitated through virtual classrooms, via video conferencing and through interactive online learning platforms. Digital platforms can also reduce barriers to education, including translation across languages and for people living with disability. Digital inclusion enables education to be more accessible, affordable and equitable, as well as provides flexibility for people with diverse learning needs. Indigenous communities in rural and remote locations can benefit from increased access to broader teaching and learning opportunities, increased quality of teaching and more connectivity through digital learning.

Social Services

Access to digital technology increases the availability of social services for Indigenous communities by enabling remote access to essential resources like healthcare, education, and government assistance. Digital platforms allow communities to connect with social service providers, apply for benefits, and receive support without needing to travel long distances. This connectivity ensures that even remote or underserved areas can access critical services, improving overall well-being and social inclusion. Digital technology also facilitates communication and collaboration with service providers, ensuring timely and effective delivery of services.

Economic Development

Access to digital technology creates economic opportunities for Indigenous communities by enabling participation in the digital economy, online entrepreneurship, and e-commerce. It allows Indigenous businesses to reach wider markets, promote their products, and engage in global trade. Digital platforms also provide access to financial services, training, and resources, helping to develop skills and grow enterprises. By harnessing digital tools, Indigenous communities can preserve their cultural heritage while generating income, fostering economic self-sufficiency, and reducing reliance on external economies.

Case Study 10 Greater Access to Markets in Chinese Taipei



Launched in 2013, Chinese Taipei's i-Tribe project has provided free outdoor public Wi-Fi in Indigenous areas, offering speeds up to 100Mbps across over 600+ Indigenous communities. This initiative aims to connect Indigenous Peoples to critical services in healthcare, education, tourism, and industry, bridging connectivity gaps in hard-to-reach areas. The project not only facilitates essential services but also supports community development and economic opportunities by using technology to promote Indigenous culture and enterprise.

Building and maintaining broadband in remote Indigenous areas in Chinese Taipei has posed significant challenges due to high costs, complex terrain, and susceptibility to natural disasters. Despite these obstacles, i-Tribe has successfully established robust digital infrastructure, enhancing healthcare access through mobile clinics, expanding educational resources, and enabling local industries.

i-Tribe has also created economic pathways for Indigenous enterprises, providing them with real-time market data to adapt production and pricing strategies. Additionally, the Council of Indigenous Peoples (CIP) has been able to highlight and preserve Indigenous cultural values through this digital infrastructure, transforming them into business opportunities that benefit both tourism and local economies.

Chinese Taipei has a plan for future plans and developments from 2023-2028 which includes the creation of a dedicated e-commerce platform for Indigenous products, giving these communities a broader reach to markets. This platform will integrate with existing e-commerce channels, creating a unique space for Indigenous products, and allowing offline and online sales channels to complement one another. By promoting digital literacy and economic skills within Indigenous communities, CIP aims to empower local enterprises and preserve cultural heritage while fostering economic growth.

The i-Tribe initiative is a ground-breaking model for digital inclusion in Indigenous communities of Chinese Taipei. Through comprehensive infrastructure, economic support, and cultural promotion, i-Tribe is enabling Indigenous communities to thrive in an increasingly digital world and fostering sustainable development that respects and amplifies Indigenous identities.

Recommendation 7

Promote and encourage Indigenous entrepreneurship and innovation to make use of digital technologies and capitalise on their unique cultures, knowledge, skills and experiences as a means of building social and economic capital through participation in the digital economy.

Culture, Knowledge and Histories

Indigenous communities can use digital technologies to preserve culture, knowledge, and histories by creating and sharing digital archives, multimedia content, and online platforms dedicated to their traditions, languages, and stories. These tools enable the documentation of oral histories, cultural practices, and traditional knowledge, making them accessible to future generations. Social media and websites allow Indigenous Peoples to share their heritage globally, fostering cultural exchange and awareness. Digital tools also support language revitalisation through online courses and apps, ensuring that Indigenous cultures and identities remain vibrant and resilient in the digital age.

Section 5: Opportunities

Increased digital inclusion offers Indigenous communities' substantial opportunities to access critical services, advance economic growth, and promote cultural preservation. Digital inclusion offers transformative potential for Indigenous communities, fostering improved health, education, and social services access. To maximise these benefits, ongoing support for affordable services and digital literacy initiatives is essential, ensuring Indigenous Peoples can fully participate in and benefit from the digital age. By enhancing access to high-speed Internet and digital tools, Indigenous communities can overcome geographic and socioeconomic barriers to essential services in health, education, and social connectivity. Increasing digital literacy is crucial so community members can effectively use digital tools and platforms. Training programs that teach basic digital skills, cybersecurity, and efficient Internet use can empower Indigenous individuals to navigate online spaces confidently, enhancing the effectiveness of expanded access.

Digital inclusion provides Indigenous communities with powerful tools to share, preserve, and celebrate their cultures and knowledge on a global scale. High-speed Internet and digital platforms enable Indigenous Peoples to create and share content that represents their unique cultural heritage, including language, art, music, and traditional practices. Through platforms like YouTube, podcasts, social media, and digital storytelling websites, Indigenous creators can reach broader audiences, fostering cultural pride and awareness across generations and regions. By leveraging digital platforms, Indigenous communities can share their heritage while maintaining control over how their cultural content is represented and distributed. Digital inclusion can enable the preservation of Indigenous languages and support language revitalisation projects, like digital dictionaries, language learning apps, and online courses, allow younger generations and distant communities to connect with and learn their ancestral languages. New access to digital tools can also enable knowledge-

sharing between Indigenous communities and the broader public, helping to increase understanding and awareness. Online archives, virtual museum exhibits, and geospatial mapping projects also allow Indigenous communities to document and safeguard their knowledge for future generations.

Reliable Internet access increases access to digital health, education and social services, government resources, and participation in cultural and social events through virtual platforms, promoting community engagement and cultural preservation. Indigenous individuals also have increased access to online markets, new business opportunities and potential for careers in creative industries where Internet services are accessible and affordable. Despite these opportunities, achieving digital inclusion requires addressing barriers to affordability and digital literacy. Internet and telecommunications services must be affordable to ensure they are accessible to all, particularly in lower-income Indigenous households.

Section 6: Recommendations

Recommendation 1: Broadband Infrastructure

Promote both public and private sector investments which encourage and incentivise the extending of telecommunications and broadband infrastructure in rural and remote areas and improve access for Indigenous Peoples. Promote and encourage Indigenous entrepreneurship and innovation to make use of digital technologies and capitalise on their unique cultures, knowledge, skills and experiences as a means of building social and economic capital through participation in the digital economy.

Recommendation 2: Spectrum Access

Increase the availability of spectrum licensing for Indigenous communities (whether directly or via partnerships and collaborations) and provide the economic support or incentives required to support Indigenous investments in spectrum access.

Recommendation 3: Culturally Appropriate Solutions

Provide support or incentivise community-led digital initiatives and partner with local Indigenous organisations to identify and enable culturally appropriate solutions that increase access to reliable Internet services.

Recommendation 4: Indigenous Leadership

Support Indigenous communities to amplify and promote Indigenous voices, stories and culture, through appropriate Indigenous-led and -owned digital and traditional media services.

Recommendation 5: Affordable Access

Implement or expand initiatives across the economy which promote and incentivise equitable, lower-cost access to reliable communications and broadband services for Indigenous Peoples

Recommendation 6: Digital Literacy

Expand the availability of programs or initiatives that build digital awareness and capabilities in digital literacy and online safety that are specifically designed to meet the needs of Indigenous Peoples and communities.

Recommendation 7: Digital Ability

Promote and encourage Indigenous entrepreneurship and innovation to make use of digital technologies and capitalise on their unique cultures, knowledge, skills and experiences as a means of building social and economic capital through participation in the digital economy.