ATSE

SUBMISSION

Submission to the NSW Department of Customer Service

Submission to the NSW Digital Inclusion Strategy

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The Australian Academy of Technological Sciences and Engineering (ATSE) is a Learned Academy of independent, non-political experts helping Australians understand and use technology to solve complex problems. Bringing together Australia's leading thinkers in applied science, technology and engineering, ATSE provides impartial, practical and evidence-based advice on how to achieve sustainable solutions and advance prosperity.

Digital inclusion is fundamental for increasing access to services, education, and participation in the digital economy in New South Wales (NSW). This submission proposes that digital inclusion in NSW can be improved by expanding infrastructure, improving affordability, developing digital literacy, and combatting misinformation and disinformation. Rural and remote areas like Brewarrina and Central Darling significantly lag behind cities such as Sydney in terms of internet access and digital literacy. For Aboriginal communities, including remote communities, improved access to digital technologies can offer opportunities for cultural engagement and access to services.

ATSE makes the following recommendations to inform the NSW Digital Inclusion Strategy:

Recommendation 1: Invest in infrastructure development and maintenance, affordability, access to devices, and appropriate training and engagement programs, to improve digital inclusion in NSW.

Recommendation 2: Prioritise investment to affordable access to digital devices and services for regional, rural and remote Aboriginal communities.

Recommendation 3: Interface with the Roadmap for First Nations Digital Inclusion to deliver digital literacy programs.

Recommendation 4: Enhance collaboration between government departments, universities and digital platforms and support independent fact-checking organisations to maintain digital ecosystem integrity.

Recommendation 5: Develop enhanced digital products using AI and machine learning and extend 5G deployment to enable improved digital engagement.

Improving digital access and literacy in NSW

To improve digital inclusion in NSW, priorities include expanding infrastructure, enhancing affordability, developing digital literacy, and promoting accessible design. Rural and remote areas of NSW have lower internet access compared to urban areas like Sydney. The Australian Digital Inclusion Index (ADII) finds that while NSW's level of digital inclusion is in line with the national average, however, this is mainly isolated to major population centres such as Sydney, Newcastle, and the greater Canberra area. Most regional and remote areas sit far below the national average, with Brewarrina, Central Darling and Coonamble rating as the lowest in terms of digital inclusion[1] (ADII, 2022). Even though affordability has improved at a national level since 2021, substantial numbers of Australians continue to experience affordability stress, meaning that they would need to pay more than 5% of household income to maintain quality, reliable connectivity (Thomas et al., 2023).

Expanding telecommunications infrastructure in rural and remote areas and improving affordability of internet and mobile networks for low-income households and areas, are foundational actions to improve digital inclusion. The $50 million allocated to the Connecting Country Communities Fund, which delivered 140 mobile base stations to extend mobile coverage ($39 million) in regional NSW and provided broadband internet access ($11.5 million) to regional communities across the Goulburn, Monaro and Kangaroo Valley regions, is an important initiative to close the digital divide. ATSE welcomes the NSW Government initiative of their Regional Digital Connectivity program project, announced in their 2023-2024 Budget ($252 million over four years), which aims to continue to improve mobile coverage and internet connectivity in regional NSW. Achieving genuine digital inclusion across the state requires additional investment in building and maintaining infrastructure, and improved access to devices for under-served communities. Ideally, new telecommunications infrastructure should seek to provide fast-speed networks in rural, regional and remote areas. For example, extending the rollout of 5G networks would improve connectivity speeds and support advanced applications in education and healthcare.

International best practice suggests the 'triple-crown' approach to addressing network, device and skill provision to improve digital inclusion (Robinson et al., 2020) - with this in mind the Strategy should also seek to build digital literacy across targeted demographics. For example, digital inclusion of Australians aged 65-74 is well below the national average and falls even further for those above 75 years old (Thomas

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[1] For a complete map of Digital Inclusion in NSW see the Australian Digital Inclusion Index.

et al., 2023). Between 24% and 42% of people from socio-economically disadvantaged and culturally and linguistically diverse communities, people with disabilities, and Aboriginal and Torres Strait Islander peoples are highly excluded from digital services (Thomas et al., 2023). Developing and delivering targeted programs for these groups will be critical to improving digital inclusion in NSW, enabling greater participation in the digital economy, education, and government services. At the same time as increasing digital literacy, digital engagement from these groups can be supported by ensuring government-provided digital content is designed to be accessible and appropriate.

Recommendation 1: Invest in infrastructure development and maintenance, affordability, access to devices, and appropriate training and engagement programs, to improve digital inclusion in NSW.

Supporting digital inclusion for Aboriginal Communities

Ongoing under-investment in infrastructure for regional, rural and remote Australia impacts access to digital technologies for many Aboriginal and Torres Strait Islander communities. The Digital Gap increases dramatically with remoteness, starting with a small disparity in major cities and expanding largely in remote and very remote areas (ADII, 2023b). For example, remote Aboriginal communities like Wilcannia, NSW have very low scores for digital access compared to urban areas (ADII, 2023a). Digital technologies offer opportunities for Aboriginal communities in NSW to preserve and teach their rich cultural heritage, access essential services, and bridge the digital access and connectivity. Digital platforms can facilitate the sharing and teaching of Traditional Knowledge and languages, fostering cultural preservation, connection, and education. Additionally, improved digital connectivity can enable telehealth services, reducing healthcare disparities in remote Aboriginal communities.

However, a key challenge is the lack of digital infrastructure and its maintenance in many remote Aboriginal communities, obstructing access to online resources and services. Approximately 21.3% of First Nations people rely solely on mobile devices (ADII, 2023c). Government services should be accessible through phone apps that load quickly on slow internet or through phone calls. Since devices are often shared, apps need to support multiple user profiles within one interface. There is a lack of digital literacy education programs that is being exacerbated by the withdrawal of Vocational Education & Training (VET) programs, and the absence of digital inclusion policy and insufficient investment at all government levels (Young & Smede, 2021). The NSW Digital Inclusion Strategy can address this by expanding broadband networks and ensuring affordable access to digital devices and services specifically for Aboriginal communities, as suggested in ATSE's submission to the Roadmap for First Nations Digital Inclusion. As outlined in the submission, infrastructure investment is most effective if undertaken alongside culturally appropriate and co-designed digital literacy programs, through the school system and adult education.

When designing and implementing initiatives to enhance digital inclusion for Aboriginal communities, it is important to consult and include those communities in the design and implementation plans, and to design for data sovereignty. Aboriginal and Torres Strait Islander people have historically had limited control over how their data is collected, used, and shared. ATSE has previously recommended the creation of a regulatory framework for Indigenous Data Sovereignty to support appropriate usage of Traditional Knowledges (ATSE, 2022).

Recommendation 2: Prioritise investment to affordable access to digital devices and services for regional, rural and remote Aboriginal communities.

Recommendation 3: Interface with the Roadmap for First Nations Digital Inclusion to deliver digital literacy programs.

Guarding against misinformation and disinformation

To effectively guard against misinformation and disinformation in NSW, the digital inclusion strategy can focus on implementing digital literacy education, collaboration with tech companies, and robust regulatory frameworks. Integrating critical thinking and media literacy into digital literacy programs is essential to help users discern reliable information sources. There are already some initiatives in place that can be highlighted by the Digital Inclusion Strategy. The NSW Government already provides a suite of resources to teach digital resilience, including lesson plans and teacher training (Digital Citizenship & Department of Education, 2024). Campaigns such as the NSW Electoral Commission's "Stop and Consider" educates voters on the risks of misinformation (NSW Electoral Commission, 2023).

Federally, it is important that regulatory frameworks are developed and enforced to hold online platforms accountable for the spread of misinformation. The Australian Communications and Media Authority (ACMA) will soon have the authority to require social media companies to maintain records of their misinformation management practices and adhere to established codes of conduct (Fraser, 2024). Platforms may also leverage AI technologies to enhance algorithms that detect and reduce the spread of misinformation can help mitigate its impact.

NSW is already a leader in the fight against misinformation and disinformation. The International Digital Policy Observatory (IDPO), developed by Sydney universities, tracks global policies and regulations on misinformation, promoting transparency and collaboration among tech companies, policymakers, and regulators (The University of Sydney, 2024). The Digital Inclusion Strategy can bring together some of the excellent initiatives already in place and identify opportunities for collaboration between government departments, universities and digital platforms.

Recommendation 4: Enhance collaboration between government departments, universities and digital platforms and support independent fact-checking organisations to maintain digital ecosystem integrity.

Leveraging new and advanced technologies

Leveraging new and advanced technologies, such as 5G, AI and machine learning (ML), can contribute to equitable access and enhanced digital experiences. For example, AI and ML can be used to create personalised digital education and training programs, making them more accessible and effective for diverse populations. This could enhance the capacity of initiatives such as Accessibility NSW, which has created an accessibility toolkit and advised on and audited government digital products. AI-based accessibility tools, such as speech-to-text and text-to-speech, can be used to improve accessibility of government services. AI and ML can also serve to exclude under-served communities and minority groups, making it more important to support digital inclusion for diverse cohorts, including through building digital literacy, co-creating digital technologies and resources, developing suitable regulatory guardrails, and ensuring digital technologies are Australian-made or appropriate for the Australian context. For example, by building skills and digital literacy for diverse cohorts, involve those cohorts in creating new technologies, ensure we have Australian-made or managed new digital technologies, and ensure regulatory guardrails are in place to protect vulnerable people

Recommendation 5: Develop enhanced digital products using AI and machine learning and extend 5G deployment to enable improved digital engagement.

ATSE thanks the NSW Department for Customer Service for the opportunity to respond to the consultation on a Digital Inclusion Strategy for NSW. For further information, please contact academypolicyteam@atse.org.au.

References

ADII. (2022). *The National Picture*. Digital Inclusion Index.
https://www.digitalinclusionindex.org.au/dashboard/National.aspx

ADII. (2023a). Case study: Mapping the Digital Gap - digital inclusion in remote First Nations communities. *Melbourne: ARC Centre of Excellence for Automated Decision-Making and Society, RMIT University, Swinburne University of Technology, and Telstra*. https://doi.org/10.1080/22041451.2019.1601148

ADII. (2023b). *First Nations*. Digital Inclusion Index. https://www.digitalinclusionindex.org.au/first-nations/

ADII. (2023c). *Measuring Australia's Digital Divide*. https://doi.org/10.25916/528s-ny91

ATSE. (2022). *ATSE submission on the 5 Year Productivity Inquiry: Australia's data and digital dividend*. https://www.atse.org.au/media/zaknajdb/2022-10-07-5-year-productivity-inquiry.pdf

Digital Citizenship, & Department of Education. (2024). *Teaching digital resilience*. NSW Government. https://www.nsw.gov.au/education-and-training/digital-citizenship/teaching-and-learning/digital-resilience

Fraser, N. (2024). *Media regulation - what to expect in 2024*. Parliament of Australia. https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/FlagPost/2024/March/Media_regulation_2024

NSW Electoral Commission. (2023). *Stop and consider*. NSW Government. https://elections.nsw.gov.au/integrity/disinformation-register/stop-and-consider

Robinson, L., Schulz, J., Dodel, M., Correa, T., Villanueva-Mansilla, E., Leal, S., Magallanes-Blanco, C., Rodriguez-Medina, L., Dunn, H. S., Levine, L., McMahon, R., & Khilnani, A. (2020). Digital Inclusion Across the Americas and Caribbean. *Social Inclusion*, *8*(2), 244–259. https://doi.org/10.17645/si.v8i2.2632

The University of Sydney. (2024). *Fake news and misinformation: Sydney universities launch new database*. https://www.sydney.edu.au/news-opinion/news/2024/04/22/fake-news-misinformation-sydney-universities-launch-new-database.html

Thomas, J., McCosker, A., Parkinson, S., Hegarty, K., Featherstone, D., Kennedy, J., Holcombe-James, I., Ormond-Parker, L., & Ganley, L. (2023). Measuring Australia's Digital Divide: Australian Digital Inclusion Index: 2023. *Melbourne: ARC Centre of Excellence for Automated Decision-Making and Society, RMIT University, Swinburne University of Technology, and Telstra*. https://doi.org/10.25916/528s-ny91

Young, M., & Smede, B. (2021). Indigenous community perspectives and experiences of digital inclusion. *First Nations Media Australia and the InDigiMOB Project*. www.accan.org.au