

ISSUES PAPER: **DIGITAL INCLUSION,** **DISABILITY, AND HOUSING**

Dr Kim Osman, Dr Amber Marshall, Ms Aimee Hourigan, & Ms Fiona Malcolm

Executive summary

This issues paper brings together insights from two research projects undertaken by the Queensland University of Technology's (QUT) Digital Media Research Centre's (DMRC) Digital Inclusion and Participation program, primarily in 2021-23:

- *Developing digital inclusion programs in community contexts*, in partnership with Queenslanders with Disability Network (QDN); and
- *ARC Linkage: Advancing digital inclusion in low-income families in Australia*, in partnership with The Smith Family, Good Things Foundation Australia, Infoxchange, yourtown, and Digital Literacy Foundation.

The purpose is to communicate relevant findings from these projects, that form a new research agenda to policymakers, sector leaders, relevant stakeholders, and participant organisations. It focuses on intersecting issues related to digital inclusion, disability, and housing, which emerged as priority areas requiring further investigation, understanding, and intervention in pursuit of closing the digital divide in Australian communities.

We draw attention to the need for deeper consideration of barriers to digital inclusion at three levels:

1. Infrastructural challenges relating to access to reliable, affordable digital connections, devices, and data;
2. Organisational challenges relating to capacity and capabilities of social infrastructure that works to support people in social and community housing and living with a disability; and
3. Individual challenges relating to opportunities for digital skilling and participation.

These insights inform a proposed research agenda to drive best practices for developing community-led digital inclusion interventions in Australia and beyond.

Contents

1. Introduction.....	3
2. Background to research projects.....	6
3. Emergent issues	7
3.1 Infrastructural challenges	7
3.1.1 Lack of access to appropriate devices	7
3.1.2 Accessing affordable digital devices	7
3.2.3 Accessing affordable digital connections	8
3.1.4 Accessibility and social housing.....	10
3.2 Individual/family challenges	10
3.2.2 The importance of literacy alongside digital literacies	11
3.2.3 Digital inclusion challenges during time a crisis	12
3.3 Organisational challenges.....	12
3.3.1 Ensuring digital capabilities at all levels of an organisation	12
3.3.2 Building digital capabilities through peer-led learning model.....	12
3.3.3 Limitations of a peer-learning approach.....	13
4. A new research agenda: Digital inclusion, disability, and social housing	14

Suggested citation: Osman, K., Marshall, A., Hourigan, A. & Malcolm, F. (2023) Issues Paper: Digital Inclusion, Disability & Social Housing. *Queensland University of Technology Digital Media Research Centre*, Brisbane, Australia.

1.Introduction

The digital exclusion of Australians living with a disability and experiencing housing precarity is a pressing issue. As services turn to digital first models of provision, those without reliable, quality, and appropriate digital access risk further social, cultural, and economic exclusion.

The issues outlined in this paper are presented in the context of [Queensland's Digital Economy Strategy](#) that prioritises digital inclusion (April 2023); the latest [Australian Digital Inclusion Index](#) (ADII) findings (July 2023); and the inaugural national [First Nations Digital Inclusion Plan](#) (July 2023). This paper also recognises the Queensland and Commonwealth Governments' acknowledgment of the importance of digital inclusion across all life spheres:

"Digital inclusion is not a privilege; it is a necessity. It is a priority of the Albanese Government."
Federal Communications Minister, The Hon Michelle Rowland recently stated: (bit.ly/3JMuL8f).

One in six Australians live with a disability (Australian Institute of Health and Welfare, 2022) and are some of the most digitally excluded people in Australia. The Australian Digital Inclusion Index (Thomas et al., 2023) reports that, in 2022, people living with a disability scored 61.4 points (out of an ideological 100), while people without disability scored 75.4 points (+14.0).

The Index also reports on the sub-indices of *Access* (types of digital connections and devices and frequently of use), *Affordability* (percentage of household income required for quality, reliable connectivity) and *Digital Ability* (skill levels, activities, confidence), as shown in Table 1. This data shows that people living with a disability are particularly disadvantaged in *Access* and *Digital Skills*.

	National average	People with disability	People without disability
Access	72.0	63.1 (-8.8)	73.7 (+1.7)
Affordability	95.0	91.5 (-3.5)	95.6 (+0.7)
Digital Ability	64.9	47.7 (-17.2)	68.2 (+3.3)
Overall	73.2	61.4 (-11.7)	75.4 (+2.2)

Table 1: ADII scores for people living with a disability in 2022.

In 2021, 31.2% of Australians with disability were mobile-only users (Thomas et al., 2020, p. 18). Mobile-only users are subject to higher cost structures than those on broadband and have less data available to them. Also, owing to the limited capacities of mobile devices in comparison to desktop or laptop computers, mobile-only users lack advanced digital skills (Thomas et al., 2017).

There are intersecting digital inclusion challenges for people living with a disability related to income, employment, and education levels, as well as housing. People living with a disability are more likely to live in social housing or experience housing precarity and homelessness. Almost 40 percent of social housing¹ households include at least one person living with a disability (where disability status is known) (Australian Institute of Health and Welfare, 2022). Relatedly, a key finding of the 2023 Index Report is as follows:

¹ Social housing includes public housing, community housing, and State Owned and Managed Indigenous Housing.

“Housing tenure matters. People living in public housing recorded an Index score of 11.6 lower than the national average, with digital inclusion scores among this group growing more slowly than the rest of the population” (Thomas et al., 2023, p. 6)

Several recent research projects provide insight into some drivers, solutions, and outcomes associated with successful digital inclusion of these typically more vulnerable populations. In relation to disability and digital inclusion, Barlott et al. (2020) document the ways digital technologies can “open the door to possibilities” in the lives of people with intellectual disability. Moreover, Goggin, Ellis, and Hawkins (2019) further suggest that disability is, or should be, being placed at the centre of contemporary discourses of digital inclusion and rights, especially in relation to pressing social challenges from AI, data, automation, and the next wave of internet and mobile technologies.

Where digital inclusion and housing is concerned, as early as 2009 evidence emerged of the benefits of providing public housing residents to computer hardware, software, affordable internet, and user support (Infoexchange Australia, 2009). Benefits included:

- Employment and education, through additional skills and access to new jobs;
- Enhanced communication and greater social and economic connectivity;
- Greater transactional efficiencies, by using online tools and access; and
- Improvements to the health and wellbeing of residents.

Likewise, Seton, Ticker, and van der Zwan (2015) found that social housing residents, particularly older residents, who received tailored digital training improved important aspects of their social engagement and personal confidence.

Very little is known, however, about the digital inclusion experiences of people experiencing intersecting disadvantage, such as those with a disability and living in social and community housing. Accordingly, as a starting point, we outline the emergent issues relating to digital inclusion and its intersection with experiences of disability and housing emerging from two research projects involving partnerships with organisations delivering digital inclusion programs into disadvantaged communities. Challenges and opportunities are explored across three levels: structural, organisational, and individual. Thereafter, we outline an evidence-based research agenda aimed at meeting the future needs of the digital inclusion and community development sector.

2. Background to research projects

Project 1. Developing digital inclusion resources for community contexts (2022)

In 2022, Queenslanders with Disability Network (QDN) implemented a first-of-its-kind community-led digital inclusion project. The project aimed to provide essential support to marginalised communities, specifically people with a disability, to strengthen their capacity to use digital technologies to become and remain connected to their social networks and support structures, particularly in times of crisis or emergencies, such as health and natural disasters. The project was funded by the Queensland Government Department of Communities, Housing and Digital Economy, and brought together a range of key partners and stakeholders including GIVIT, Volunteers Queensland, QUT, and other disability advocacy bodies and telecommunications providers.

The QUT Digital Media Research Centre (DMRC) was the key research partner on the project. Our role was to document the process by which QDN and its partners rolled out its ambitious 'AAA' plan to match participants with free digital devices, investigate and advocate for affordable connections and data, and conduct digital literacy training in four LGAs in Queensland (Brisbane, Gold Coast, Ipswich, and Townsville). Throughout the project, we shared insights that helped to situate the project within broader knowledge of the structural and conceptual conditions and circumstances that impact equitable and safe participation in the digital society. Further, through a distinctly participatory methodology, we sought to develop and test evidence-based and theory-driven digital inclusion resources for use in community contexts. Through participant observation and a series of co-design workshops, we directly engaged the focal communities (including QDN and partner staff alongside individuals with a disability) to review and assess digital skills standards and in doing so provide an improved understanding of the lived experiences of digital inclusion amongst the key groups.

Project 2. Advancing digital inclusion in low-income families in Australia (2021-2024)

Families living on low incomes are among the least digitally included Australians and are at greater risk of broader social exclusion than other Australians. Digital ability and digital inclusion have been linked to a range of social and economic benefits. Australians who have adequate, affordable access to digital technologies and the knowledge and skills to use them, have better outcomes across life spheres including education, work, finance, health, and well-being. This ethnographic investigation explores the complex relationship between digital and social inclusion, as well as the role of social infrastructure (education facilities, charities, government services) in supporting low-income families in six diverse communities from North Queensland to Tasmania, across diverse urban, regional, and rural locations. It focuses on the digital inclusion implications of children's home and school learning experiences, school leavers' transitions into work, and parenting in digital times.

QUT is collaborating with researchers from Western Sydney University, Swinburne University of Technology, and RMIT, together with partners The Smith Family, Good Things Foundation, Infoxchange, yourtown, and Digital Literacy Foundation. A report outlining the key findings from this research at the halfway point of the project was published by the Analysis & Policy Observatory in October 2022 (see Dezuanni et al., 2022). This research project is being undertaken as an Australian Research Council Linkage project (LP 190100677).

3. Emergent issues

3.1 Infrastructural challenges

The research projects draw overt attention to the infrastructural issues of access to digital devices and connections within experiences of digital inclusion for individuals with a disability.

3.1.1 Lack of access to appropriate devices

A key issue is appropriate device matching; that is, challenges associated with the allocation, adoption, and ongoing maintenance of technological devices for people based on their individual needs. In disability and community services sector contexts, the provision of technology resources is often carried out on a charitable basis, or as part of distinct service provisions. The resources available (i.e., the types of devices and peripheral technological equipment such as computer keyboards) are often donated, sourced second-hand, or procured via other cost-effective means. This presents clear challenges to the way in which devices are allotted and distributed to individuals with a disability based on their needs. For instance, in the QDN project, devices were sourced via an appeal through GIVIT, a charitable organisation that operates Australia-wide.

Whilst the appeal was successful, many of the donated devices were outdated or ineffective in meeting the specific needs of the designated individual. To counter these challenges, the QDN project pivoted to a funds-based model, in which monetary donations were sourced through the appeal and appropriate devices purchased separately. Monetary donations allowed QDN and their project partners to purchase new, accessible devices, rather than struggle with attempts to retrofit older devices. Whilst the approach taken resolved the emergent issue within the project, it more broadly points to the ongoing challenge of affordability as a key facet of the dimension of access.

The QDN project further revealed that matching devices to the needs of people living with a disability is a complex and time-consuming process. Given that the needs of each person are different, QDN needed to consult with each person requiring a device or digital support (approximately 800 individuals), and created a database specifically for recording the type of information necessary to select an appropriate device to address the individual's digital needs. This required significant inhouse capacity and capability, which many community service organisations may not possess.

3.1.2 Accessing affordable digital devices

Purchasing a new, digital device is a substantial cost for many Australians. For individuals with a disability, additional issues of affordability emerge in relation to ensuring compatible accessibility software is installed on their device devices. For example, assistive technologies, such as screen readers and single switch entry devices, may be a necessary expense for many individuals. These devices are augmentative, allowing individuals with a disability to use and interact with their devices in myriad ways.

Further challenges may emerge if the primary device does not have the appropriate or compatible operating system or complementary software installed on it at the point of purchase. To this extent, service providers often need to work with individuals to help them set up their devices. Here, disability and community service support workers serve an invaluable role in shaping experiences of digital

inclusion. They play a digital mentor role, streamlining the process of engagement for individuals with a disability and further supporting them to use digital technologies in ways that emerge from and respond to their individual needs.

3.2.3 Accessing affordable digital connections

Accessing essential services, which are increasingly online in line with digital-by-default strategies of governments, can often be challenging for individuals with a disability due to inappropriate or inaccessible internet or data connections. Depending on their mobile or internet data plans, individuals may be unable to engage with certain services, such as telehealth calls, for extended periods of time, or be unable to download/upload files (e.g., proof of identity) due to their home internet connections. This becomes even more important to note when considering some individuals with a disability may be unable to visit government, community, and disability services in person.

When accessing services in person, considerations also emerge in relation to the types of digital technologies that are available to support individuals to access key services. For instance, whilst many government services provide access to assistive listening devices (such as portable hearing loop devices) within their service centres, individuals with a disability may still need to rely on service staff to assist in other areas of access, such as physically completing forms or using digital consoles to submit claims.

Further, whilst personal assistive technologies are provided to individuals through the NDIS' tiered Assistive Technologies (AT) funding support scheme, digital or smart devices, such as iPads or tablets, which could assist in accessing government services both in person and online, are not typically funded (National Disability Insurance Agency, 2022). Other digital utilities, such as mobile data or an internet connection, are also typically excluded from the NDIS AT funding support schemes, as they are predominantly considered to be an ordinary living expense (National Disability Insurance Agency, 2023).

Individuals with a disability may therefore lack the digital capabilities to interact with the digital devices or assistive technologies made available at government services, or further may not have the appropriate connectivity (such as if they own a mobile-only device with limited data downloads) to connect to government services in physical locations.

To navigate these issues, service providers should strive to provide open access devices that are set up to meet the needs of individuals with a disability, and should also consider how they can accommodate individual's connectivity needs, such as providing free, easily accessible, and secure Wi-Fi or data hotspots within service centres.

Case Study: Better Life Mobile

For many individuals with a disability, setting up and managing a telecommunications service account or interacting with telecommunications providers can be an additional barrier or burden to digital inclusion. During the QDN project, individuals shared how they felt they were not appropriately supported when trying to sign up to a mobile or data plan, and that there was limited or no appropriate ongoing support if any issues with their connection or plan occurred.

Consequently, as a key outcome of the project, QDN established an ongoing partnership with Better Life Mobile, a Melbourne based social enterprise who work to reduce the barriers to digital inclusion through the provision of fair, affordable, and accessible mobile and data services. Throughout the project 50 individuals were connected to a mobile data plan through Better Life Mobile and credited two months of free mobile connection and data prior to having to make their first fortnightly payment.

Foundationally, Better Life Mobile's services are designed to respond to and alleviate the various points of disconnection or exclusion felt by individuals when attempting to get a mobile service. To begin, the process to sign up with Better Life Mobile has been streamlined to consider the complex needs of people with financial restraints and complex life circumstances. Consumers do not require formal identification to sign up (which removed a huge barrier for many people participating in the QDN digital inclusion project). Better Life Mobile have also enabled consumers on income support to access Centrepay to make payment on their plans, so that it is automatically deducted each fortnight.

The partnership between QDN and Better Life Mobile provided affordable data plans for many of the individuals involved in the project, as well as ongoing consumer engagement and support. This ongoing engagement vitally keeps people connected and ensures they have support if their circumstances change. For instance, Better Life Mobile connects with consumers monthly and if they notice that things have changed with payments or if they should be on a different plan, they will contact them again. Better Life Mobile also do not financially punish consumers for going over their data or not paying a bill on time. Instead of charging for the extra services, Better Life Mobile will extend time frames or make a monetary contribution to the consumer, ensuring long-term digital connection. The Better Life Mobile customer service operators are patient and helpful, and take the time to deeply listen and respond to individual's capabilities and needs.



3.1.4 Accessibility and social housing

The above issues—of access and affordability—intersect and compound with infrastructural concerns relating to housing.

Individuals with a disability often live in shared, social, or organisationally managed housing arrangements, as was the case for several community members who participated in the QDN project. Within these housing structures, different types of internet connections are available. These connections, and the associated payment plans, may be restricted based on the shared living arrangements.

For instance, the house and utilities may be managed by a central agency or body corporate, with individuals subsequently having no input or control over their connections. In other situations, one individual may need to take responsibility for the connection, including paying bills, to meet the requirements set by the telecommunications provider. As an example, signing up for an NBN connection requires a fixed address and for only one person's name to be on the account.

Moreover, some housing complexes might not have existing NBN connections, and costs associated with a new connection are often prohibitive for residents meaning they rely on mobile-only connectivity. Noting that mobile data can quickly become expensive, telecommunication providers are seeking to respond to these emergent gaps, implementing services such as community Wi-Fi and mesh networks.

However, these approaches may also fail to accommodate the specific needs of individuals with a disability. In particular, while communal connectivity solutions may 'open up' opportunities for access to the internet as an essential utility, they simultaneously invoke deeper security and privacy concerns relating to individuals' needs to access telehealth services or share personal medical data to receive care. Relatedly, devices may also be shared amongst individuals within the household, and may not appropriately meet the needs of all household members.

3.2 Individual challenges

At the individual level, emergent digital inclusion challenges relate to ensuring individuals are equipped with the knowledge and skills that can help them sustainably navigate the complexities of digital technologies now and into the future. For instance, there is an emergent need to collate and provide individuals with easily accessible, easy to comprehend information about options for purchasing affordable internet or mobile data connection plans. Providing this information allows individuals to have agency and independence-through-choice in which data plan they select, and how that plan meets their specific needs.

During the QDN workshops, individuals were taught the distinction between home and mobile internet connections, as well as the different types of data plans provided for each service. Information was also provided on data usage and ways to better manage data usage across device types.

Beyond specific learning contexts, however, data usage guides, digital financial literacy guides, or other supportive material needs to be made available to support individuals with a disability, and

individuals more broadly, to research appropriate data plans and telecommunications providers. An emerging area of concern for people is online safety and security and avoiding digital scams. Other information might relate to device-related concerns, such as device maintenance (how to manage technical issues and costs associated with updating software); ongoing device connections (understanding distinctions between Wi-Fi and Bluetooth connectivity, as well as mobile and home internet data) and data management (setting up payment cycles and understanding contracts).

Providing this information alongside digital learning programs can help foster collaborations and connections for the individual within the wider community, and further lead into the sustainability of digital inclusion programs. There is a need to show individuals how they are now part of a larger group of people, organisations, resources, and support structures that they can turn to in times of crisis or emergency.

3.2.1 Experiences of housing precarity

The low-income families project revealed that housing precarity presents additional intersecting challenges to digital inclusion. For instance, an individual or family that is experiencing homelessness may have a shared device with SIMs swapped out, making contact from service providers difficult. Similarly, individuals who are experiencing homelessness may struggle to find a place to charge their phone and connect to the internet. In these situations, disadvantage becomes amplified as adults and children miss appointments or cannot complete crucial tasks (such as reporting requirements for government service provisions) because their phone is inoperable. As a result, they may be cut off from accessing key services or receiving support payments, further compounding their exclusion.

Additionally, there are limitations posed by only being able to access online services via public connections and devices, such as those at public libraries. Families may be hesitant to access services that require them to share personal information due to concerns about privacy and security in using public devices.

3.2.2 The importance of literacy alongside digital literacies

Despite recent efforts to accommodate considerations of accessibility in the provision of community and government services, assumptions remain as to what skills and literacy levels individuals have to access key services. As an example, during the roundtable discussions, points were raised as to how individuals may not have the numeracy skills needed to use basic technologies such as ATMs or have difficulties in comprehending the documents and forms necessary to make claims for government services like myGov and Centrelink. These barriers compound as government services increasingly shift to 'digital by default'; to access Centrelink services, even in person, individuals are prompted to use the computers.

In regional or remote areas, additional complications to digital and social inclusion are posed by limited or complete lack of public transport. Individuals who are living on a low-income may struggle to reach services in town centres and when they do reach them may find it challenging to access the service due to the increasing decline in face-to-face service provision for services such as banking and Centrelink in regional areas. Applying for housing, and navigating services associated with living in public and community housing will often require literacies to navigate the service, and often the

ability to navigate these services online. For people lacking these literacies community infrastructure, such as libraries, are an invaluable resource.

3.2.3 Digital inclusion challenges during time a crisis

People living with disability may not have digital connections or consistent contact information, such as a single mobile phone number and, as such, ensuring they receive appropriate and necessary emergency, disaster, and crisis communication is incredibly complex. Our research found that the COVID-19 pandemic presented unforeseen challenges in supporting people living with a disability, including in housing. These challenges included supporting people to stay safe and access help when needed, and ensuring that they were able to access and use digital technologies to continue to access essential services, such as telehealth services. Here, QDN noted how there were additional barriers presented for individuals with a disability and for those individuals who were living in crisis accommodation at the time of the peak of COVID-19 in Queensland. They have subsequently centred their ensuing digital inclusion efforts on crisis preparedness and response.

3.3 Organisational challenges

Organisational challenges relate to those challenges faced by charities and social services organisations to support their clients and communities to get online and develop digital skills for life.

3.3.1 Ensuring digital capabilities at all levels of an organisation

The QDN project highlights the need to ensure key organisational stakeholders are equipped with comparable or more advanced digital literacies and capabilities prior to the project's implementation. This includes consideration of the necessary soft skills (e.g., empathy and understanding of lived experiences of disability) that sit alongside broader digital skills (e.g., operational, informational, and strategic skills). Staff capacity and capability to access and use technologies on behalf of the people they support is necessary not only for training and mentoring, but supporting the people they work with in their day-to-day lives as more and more services become 'digital first'.

Actively considering the internal capabilities of organisations who deliver digital skills training looks to sustain community-level digital inclusion initiatives beyond their initial implementation. That is, such efforts look to embed longevity within a project by prompting the project stakeholders to generate a genuine, foundational awareness of their limitations and strengths. Furthermore, such considerations move digital capabilities training beyond rote learning to knowledge building practices which enable learners to be more responsive and agile in their navigation of technological challenges in future.

3.3.2 Building digital capabilities through peer-led learning model

The QDN project took a peer-led approach to the development of digital capabilities amongst its focal cohort. At its foundation, this approach relied on the volunteer efforts of a group of digital mentors; individuals who had expressed a keen interest in learning digital skills and who were already working as peer leaders in their communities. Prior to implementing a series of learning workshops, the digital mentors participated in a number of training sessions facilitated by the project partners to obtain and develop key digital skills. The skills and learning activities included in these

workshops were pre-established by the project partners, and reflected core digital needs such as accessing essential services and engaging in safe online practices.

Implementing a peer-led training model helped ensure the project responded to the learning processes and lived experiences of the individuals within the focal cohort. That is, the peer-learning approach met individuals 'where they are at' in terms of their capabilities and skills. Further, the commonality of lived experience between the digital mentors and the learners helped incite deeper capacity building through reflection on each individual's digital strengths and weaknesses.

3.3.3 Limitations of a peer-learning approach

Although a peer mentoring approach is highly effective in developing digital capabilities, it is not without challenges. As we found during the QDN project, the approach relies heavily on the volunteered, often unpaid time and energy of community members. Outside of the workshops, individuals often have to commit additional time to ensuring their own digital capabilities are up to par. This may include engaging in ongoing training and continual upskilling programs to match their digital knowledge and skills to evolving technologies.

Further, in responding to the individual's learning and digital needs, the digital mentors must be adept at pivoting the learning material to suit the specific learning context. Subsequently, the digital mentors found that it was taking far more time than originally planned to engage with learners and to support them based on their individual needs. The research further showed that digital mentors must be adept in soft skills such as active listening, empathy, and patience, particularly as some people may be resistant to using digital services.

The most prominent issue to have been identified through the peer-learning approach, however, was the distinct absence of volunteers with lived experience or capabilities to respond to the needs of individuals with a disability. The QDN project partners found it difficult to recruit volunteers who had the appropriate skillsets, or indeed, to recruit volunteers who could be trained by QDN project partners in the basics of volunteer work involving individuals with a disability.

These human resourcing issues speak to the need to ensure appropriate skills are held by stakeholders at all levels of an organisation.

4. A new research agenda: Digital inclusion, disability, and social housing

Home is the place where most Australians connect to the internet, and just as shelter is a basic right, so too is the **right to access information** and essential services. Yet, 31% of people who access services across Queensland remain digitally excluded (Queensland Council of Social Service, 2023). The combination of the ongoing and persistent housing crisis and the move to digital-by-default by government agencies, the commercial sector, and within educational contexts means that people living precariously and/or with disabilities are being left behind by the digital economy because they often do not have access to secure and affordable internet connections.

Our previous research demonstrates an **urgent need to address the challenges of digital inclusion for people living in precarious housing**, and particularly for those people who also live with disability. Digital connections are important to reduce social isolation and keep people connected to social infrastructure available in the community, along with linking people to state and federal support and assistance. In response to this emerging priority research area, our team organised a series of roundtables with community housing providers and stakeholders. These consultations identified the need to develop an evidence base to address digital inclusion challenges for people experiencing housing precarity at the three levels discussed above: structural, individual, and organisational.

Research on housing precarity and disability and the intersection with digital inclusion is needed to achieve the ambitious goals of closing the digital divide as outlined in Queensland's Digital Economy Strategy (Queensland Department of Communities, Housing and Digital Economy, 2023). The research must also seek to understand, using a variety of methods, the complexities of the lived experiences of digitally excluded people.

Research needs to be driven by the sector and the community and undertaken in partnership to address the complex and intersecting issues that prevent people living with disability and in precarious housing from accessing and using technology in the ways that they need and want, in order to achieve their goals.

5. References

- Australian Institute of Health and Welfare. (2022). *People with disability in Australia 2022*. Australian Government. <https://www.aihw.gov.au/getmedia/3bf8f692-dbe7-4c98-94e0-03c6ada72749/aihw-dis-72-people-with-disability-in-australia-2022.pdf>
- Barlott, T., Aplin, T., Catchpole, E., Kranz, R., Le Goullon, D., Toivanen, A., & Hutchens, S. (2020). Connectedness and ICT: Opening the door to possibilities for people with intellectual disabilities. *Journal of Intellectual Disabilities*, 24(4), 503-521. <https://doi.org/10.1177/1744629519831566>
- Dezuanni, M., Osman, K., Foth, M., Kennedy, J., Marshall, A., McCosker, A., Mitchell, P., Notley, T., Mamalipurath, J., Mavoa, J., & Tucker, J. (2022). *Advancing digital inclusion in low income Australian families: Interim findings report*. QUT. <https://apo.org.au/node/320464>
- Goggin, G., Ellis, K., & Hawkins, W. (2019). Disability at the centre of digital inclusion: assessing a new moment in technology and rights. *Communication Research and Practice*, 5(3), 290-303. <https://doi.org/10.1080/22041451.2019.1641061>
- Infoxchange Australia. (2009). *Assessing the economic benefits of digital inclusion*. Kearney. <https://apo.org.au/node/20311>
- National Disability Insurance Agency. (2022). *Smart devices – tablets*. NDIS. <https://ourguidelines.ndis.gov.au/would-we-fund-it/assistive-technologies/smart-devices-tablets>
- National Disability Insurance Agency. (2023). *Flexible low cost AT for support continuity*. NDIS. <https://www.ndis.gov.au/participants/assistive-technology-explained/flexible-low-cost-support-continuity>
- Queensland Council of Social Service. (2023). *State of the sector 2022*. <https://www.qcoss.org.au/publication/report-state-of-the-sector-2022/>
- Queensland Department of Communities, Housing and Digital Economy. (2023). *Our thriving digital future: Queensland's digital economy strategy*. Queensland Government. <https://www.chde.qld.gov.au/digitaleconomy>
- Rowland, M. (2023, March 24). *Speech to Australian Media Literacy Summit* [Press release]. <https://minister.infrastructure.gov.au/rowland/speech/speech-australian-media-literacy-summit>
- Seton, C., Tucker, J., van der Zwan, R. (2015). The digital age project: Strategies that enable older social housing residents to use the internet. Australian Communications Consumer Action Network and Southern Cross University. <https://apo.org.au/node/57598>

-
- Thomas, J., Wilson, C. K., Barraket, J., Tucker, J., & Rennie, E., Ewing, S., MacDonald, T. (2017). *Measuring Australia's digital divide: The Australian digital inclusion index 2017*. RMIT and Telstra. <https://doi.org/10.4225/50/596473db69505>
- Thomas, J., Barraket, J., Wilson, C. K., Holcombe-James, I., Kennedy, J., Rennie, E., Ewing, S., & MacDonald, T. (2020). *Measuring Australia's digital divide: The Australian digital inclusion index 2020*. RMIT, Swinburne University of Technology, and Telstra. <https://doi.org/10.25916/5f6eb9949c832>
- 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>