



Measuring Australia's Digital Divide

The Australian Digital Inclusion Index 2016

Powered by Roy Morgan Research



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About this report

Any opinions, findings, conclusions, or recommendations expressed in this material are those of the authors, and do not necessarily reflect the views of the partner organisations.

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For more information about the ADII, and a full set of data tables, see www.digitalinclusionindex.org.au

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Forewords



Swinburne University of Technology

A digital divide exists in Australia, and with it comes the risk of deepening social, economic, and cultural inequalities. As digital technologies become ever-more central to public and private life, the disadvantages of not being connected increase.

In higher and further education, online access and skills are essential to our goal of extending opportunity to all Australians, wherever they live. University teaching was once contained within a physical campus, but that's no longer the case.

Swinburne University of Technology is committed to providing educational opportunities to Australians everywhere. But to make the most of our extraordinary human potential, it is essential to have both widely accessible and affordable communications, and good technology skills.

The Australian Digital Inclusion Index (ADII) is the outcome of a productive partnership between Swinburne researchers, Telstra, and Roy Morgan Research.

The Index will make a major contribution to our understanding of the digital divide, and our capacity to address it. It will benefit policy makers, businesses, and the community sector, and all those with an interest in improving communications in Australia.

Professor Linda Kristjanson

Vice-Chancellor and President
Swinburne University of Technology



Telstra

In today's world, being connected is now an integral part of life, and Australians increasingly spend a large proportion of their time online.

Yet even as digital technologies play an increasingly central and empowering role in our lives, there remains a significant gap between those who are connected and those who are not.

In order to drive a deeper understanding of this complex social issue, Telstra has commissioned the Australian Digital Inclusion Index (ADII). Ultimately, we hope this will mean more Australians are able to participate in the digital age.

Created in partnership with the Swinburne Institute of Social Research, and the Centre for Social Impact Swinburne, and using Roy Morgan Research data, the Index benchmarks Australia's current rates of digital inclusion. It will also help us set an informed and insightful course for where we want to be in the future.

Specifically, the Index shows that issues of access, affordability and a lack of skills may present significant barriers to greater digital inclusion. Overcoming those barriers requires a national conversation, which Telstra is proud to be a part of.

It is my sincere hope and belief that the ADII will play an important role in driving greater digital inclusiveness in Australia.

Andrew Penn

CEO
Telstra



Acknowledgements

The research team would like to thank the many people and organisations who made this first iteration of the Australian Digital Inclusion Index (ADII) possible. Understanding digital inclusion in Australia is an ongoing project. We look forward to exploring the full potential of the ADII in collaboration with all our community partners.

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The research team and authors

The ADII research team was led by Professor Julian Thomas, Swinburne University of Technology, working with co-authors:

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Key Findings

Digital inclusion is about social and economic participation

Australians go online to access a growing range of education, information, government and community services. But some people are missing out on the benefits of connection. Digital inclusion is based on the premise that everyone should be able to make full use of digital technologies – to manage their health and wellbeing, access education and services, organise their finances, and connect with family, friends and the world beyond.

Our most detailed picture yet of digital inclusion in Australia

The Australian Digital Inclusion Index (ADII) provides our most comprehensive picture yet of Australians' online participation. The Index measures three vital dimensions of digital inclusion – Access, Affordability and Digital Ability – and shows how they change over time, according to social and economic circumstances, and across geographic locations. Scores are allocated to specific regions and demographic groups, over three years (2014, 2015, 2016). Higher scores mean higher digital inclusion.

Overall, digital inclusion is growing in Australia

Australians are spending more time, and doing more, online. Since 2014, Australia's overall score has risen from 52.7 to 54.5, and every state and territory – besides Tasmania – has increasing scores. In 2016, the highest-scoring state or territory is the ACT (59.7, or 5.2 points above the national average), followed by Victoria (55.9). Groups with high digital inclusion include Australians who speak a first language other than English at home (LOTE) (57.9, or 3.4 points above the national average). This is a highly diverse group, so care should be taken in interpreting this overall finding.

But many Australians are still missing out

Across the nation, digital inclusion follows some clear economic and social contours. In general, Australians with low levels of income, education and employment are significantly less digitally included. There is a 'digital divide' between richer and poorer Australians. Particular communities and social groups (see below) are also digitally excluded. Australia's least digitally included state or territory is Tasmania (on 48.2, or 6.3 points below the national average), followed by South Australia (on 51.6).

Access is improving overall

Nationally, our measure of Access has improved steadily. Internet access was already high in 2014, and has increased. We see bigger improvements in the devices and services people are using.

But Digital Ability is an area for further improvement

Nationally, all three components of Digital Ability have improved considerably since 2014: Attitudes and Confidence, Basic Skills, and Activities. However, all rose from a low base. Digital Ability may therefore be an important focus area for policy makers, business, education and community groups.

Affordability is a challenge for some groups, although value has improved

The Affordability index number is the only key dimension to decline since 2014. While the value of internet services has improved, households are spending a growing proportion of their income on them (from 1 per cent in 2014, to 1.17 per cent in 2016). Thus, despite increasing value, the overall Affordability index score fell. If this trend continues it may be cause for concern, particularly for people on low incomes.

The 'age gap' is substantial, but steady

People aged 65+ are Australia's least digitally included demographic group (41.6, or 12.9 points below the national average). This 'age gap' has remained relatively steady over time.

For people with disability, digital inclusion is low, but improving steadily

People with disability have a low level of digital inclusion (44.4, or 10.1 points below the national average). However, nationally, their inclusion has improved steadily (by 2.6 points since 2014), outpacing the national average increase (1.8 points).

Indigenous digital inclusion is also low, but improving

Indigenous Australians also have low digital inclusion (46.6, or 7.9 points below the national average). Their inclusion improved by 1.6 points nationally over three years (below the 1.8 point national average increase), but has not risen in all states. We note that our data collection did not extend to remote Indigenous communities.

The gender gap is narrow, but different attitudes toward technology remain

Australian men and women have similar levels of digital inclusion. However, within the Digital Ability sub-index, we see a marked difference in their attitudes towards learning about new technology. This difference is greatest between younger men and women, with the gap reducing with age.

Some Australian communities are digitally excluded

Nationally, the Index points to several groups who are the most digitally excluded: people aged 65+ (41.6), people with disability (44.4), people with less than secondary education (44.6), Indigenous Australians (46.6), people in the Q4 (\$10,000–\$24,999) income bracket (47.6), and people not in paid employment (48.1). Affordability is a particular concern for these groups. Community-specific initiatives are required to address their digital exclusion.

Geography plays a critical role

The Index reveals significant differences between rural and urban areas. Nationally, digital inclusion is now 6.6 points higher in capital cities than in country areas. The 'Capital–Country gap' has widened overall, but not everywhere. This 'geographic digital divide' is largely due to widening gaps in Digital Ability and Affordability, while the Access gap has narrowed. Regional and local initiatives are needed to address the geographic digital divide.

Introduction

What is digital inclusion?

As more of our daily interactions and activities move online, being able to use digital technologies brings a growing range of important benefits – from the convenience of online banking, to accessing vital services, finding information, and staying in touch with friends and family.

But so far, these benefits are not being shared equally: some groups and individuals still face real barriers to participation. In recent years the digital divide has narrowed, but has also deepened. In 2016, almost three million Australians are not online, and are at risk of missing out on the advantages and assistance that digital technology can offer.

As the internet becomes the default medium for everyday exchanges, information-sharing and access to essential services, the disadvantages of being offline grow greater. Being connected is fast becoming a necessity, rather than a luxury.

Digital inclusion is about bridging this ‘digital divide’. It’s based on the premise that all Australians should be able to make full use of digital technologies – to manage their health and wellbeing, access education and services, organise their finances, and connect with friends and family, and with the world beyond.

The goal of digital inclusion is to enable everyone to access and use digital technologies effectively. It goes beyond simply owning a computer or smartphone. At heart, digital inclusion is about social and economic participation: using online and mobile technologies to improve skills, enhance quality of life, educate, and promote wellbeing across the whole of society.

The Australian Digital Inclusion Index

The Australian Digital Inclusion Index (ADII) has been created to measure the level of digital inclusion across the Australian population, and to monitor this level over time. The Index, powered by Roy Morgan Research, has been created through a collaborative partnership between Swinburne University of Technology, Telstra, and the Centre for Social Impact Swinburne.

In setting out the first findings of the ADII, and drawing some initial conclusions, this report offers our most detailed snapshot yet of digital inclusion in Australia. In future years, this ongoing project will provide a cumulative picture of progress over time.

A growing body of research, both here and overseas, has outlined the various barriers to digital inclusion, the benefits of digital technologies, and the role of digital engagement in social inclusion. Single studies have also measured how different groups access and use the internet. But until now, there has been no concentrated effort to combine these findings into a comprehensive overview of digital inclusion across Australia.

In our increasingly digitised world, it is vital that *all* Australians are able to share the advantages of being connected. By presenting an in-depth and ongoing overview, identifying gaps and barriers, and highlighting the social impact of digital engagement, the ADII will help inform policy, community programs, and business efforts to boost digital inclusion in this country.

Measuring digital inclusion

For researchers, practitioners and policy-makers, digital inclusion poses both a complex challenge and an important goal – one that calls for a coordinated effort from multiple organisations, across many sectors.

If the benefits of digital technology are to be shared by everyone, barriers to inclusion must first be identified and tackled. Access and Affordability are part of the picture, but a person’s Digital Ability (their skills, online activities, and attitudes to digital technology) can also help or hinder participation.

Recent international efforts to measure digital inclusion or engagement include the [Digital Economy and Society Index \(DESI\)](#), which summarises digital performance in EU member states based on five main factors: connectivity, human capital, use of the internet, integration of digital technology, and digital public services. In the UK, the [Digital Inclusion Outcomes Framework \(DIOF\)](#) tracks digital inclusion, with a focus on improving access, internet use, skills and confidence, and motivation.

In Australia, a broad measure of digital inclusion is captured by the Australian Bureau of Statistics’ biennial [Household Use of Information Technology \(HUIT\) survey](#), which collects data on location, age, income, activities, and reasons for accessing the internet or not having access. Another survey-based measure is the [Australian component](#) of the regular [World Internet Project \(WIP\) report](#), which explores how the internet influences social, political, cultural, and economic ideas and behaviour in 39 countries.

The ADII focuses on *household and personal* use of digital technologies. Existing research on addressing other aspects of connectivity includes the [EY Digital Australia: State of the Nation report](#), which explores factors driving digital engagement in a business context, and a [joint survey by Infocchange, Connecting Up and TechSoup New Zealand](#) examining digital technology in the not-for-profit sector. The [Australian Communications and Media Authority \(ACMA\)](#) also publishes regular research on the digital economy.

Methodology in brief

Digital inclusion is a complex, multi-faceted issue that includes such elements as access, affordability, usage, skills, and relevance. To inform the design of the ADII, a [Discussion Paper](#) was publicly released in September 2015, and responses sought. Wider input was encouraged via a [website](#), [Twitter account](#) and hash tag.

Feedback showed a clear desire for highly detailed geographic and demographic data. In response, we have worked with Roy Morgan Research to obtain a wide range of relevant data from their ongoing, weekly [Single Source survey](#) of 50,000 Australians. In these extensive face-to-face interviews, Roy Morgan collects data on internet and technology products owned, internet services used, personal attitudes, and demographics.

This rich, ongoing data source will allow the ADII to publish a wide range of relevant social and demographic information, and enable comparisons over time. For more detail on the Single Source survey, please see the Methodology (Appendix) section.

The Index

The ADII is designed to measure three key aspects, or dimensions, of digital inclusion: Access, Affordability, and Digital Ability. These dimensions form the basis of three sub-indices, each of which is built up from a range of variables (survey questions) relating to internet products, services, and activities. The sub-indices contribute equally and combine to form the overall Index.

The ADII ('the Index') compiles numerous variables into a score ranging from 0 to 100. Higher scores mean higher levels of inclusion. Scores are benchmarked against a 'perfectly digitally included' individual – a hypothetical person who scores in the highest range for every variable. While rare in reality, this hypothetical person offers a useful basis for comparison. This individual:

- accesses the internet daily, both at home and away
- owns multiple internet products, including a PC or tablet
- owns a mobile phone, with data, on the 4G network
- has a fixed broadband connection (cable or NBN)
- has a mobile and fixed internet data allowance greater than our benchmarks
- spends less money on the internet (as a proportion of household income) and receives more value (data allowance per dollar) than our benchmarks, and
- exhibits all the positive attitudes, basic skills, and activity involvement listed.

Index scores are relative: they allow comparisons across demographic groups and geographic areas, and over time. Score ranges indicate low, medium, or high levels of digital inclusion, as below:

	Low	Medium	High
ACCESS	< 50	55-65	> 70
AFFORDABILITY	< 40	45-55	> 60
DIGITAL ABILITY	< 40	45-55	> 60
DIGITAL INCLUSION INDEX	<45	50-60	> 65

The sub-indices

Each of the three sub-indices is made up of various components, which are in turn built up from underlying variables (survey questions).

The Access sub-index has *three components*:

- Internet Access: frequency, places, and number of access points
- Internet Technology: computers, mobile phones, mobile broadband, and fixed broadband
- Internet Data Allowance: mobile and fixed internet.

The Affordability sub-index has *two components*:

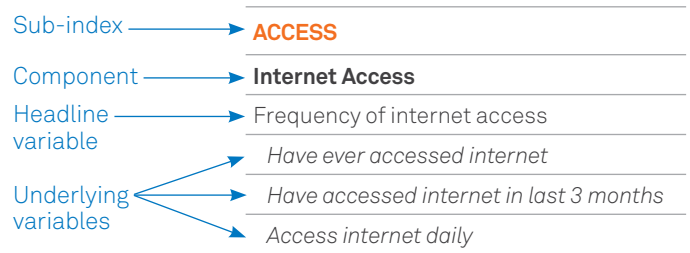
- Relative Expenditure: share of household income spent on internet access
- Value of Expenditure: total internet data allowance per dollar of expenditure.

The Digital Ability sub-index has *three components*:

- Attitudes, including notions of control, enthusiasm, learning, and confidence
- Basic Skills, including mobile phone, banking, shopping, community, and information skills
- Activities, including accessing content, communication, transactions, commerce, media, and information.

Structure of the Index

The following diagram is an example of how each sub-index is structured, with the various elements labelled.



Our full research methodology, including an explanation of the underlying variables, the structure of the sub-indices, and margins of error, is outlined in the Methodology section of the Appendix. More information about the ADII, along with a full set of data tables, is available at www.digitalinclusionindex.org.au

Reading the data

- **Timeframe:** data has been collected for three years to date (2013–2014, 2014–2015, and 2015–2016). Data was collected yearly from April to March.
- **Regional breakdowns:** to aid comparison, data for each state is displayed alongside average scores for Australia as a whole, and for the capital city, country areas, and Roy Morgan's designated sub-regions within that state.
- **Demographic groups:** nationally and for each state, data is presented according to income, employment, education, and age. Data is also provided for people with disability, Aboriginal and Torres Strait Islanders (listed as 'Indigenous' in the tables), and people who speak a language other than English at home (LOTE).
- **Income** is presented in five 'quintiles' (brackets), from highest (Q1) to lowest (Q5). The ranges are: Q1: \$70,000 or more | Q2: \$40,000 to \$69,999 | Q3: \$25,000 to \$39,999 | Q4: \$10,000 to \$24,999 | Q5: under \$10,000.
- **Employment:** the group 'people not in paid employment' (listed as 'Employment: None') includes people who are retired, those engaged in home duties, non-working students, and other non-workers.
- **Age:** scores are captured across five different age brackets, from people aged 14–24 years to people over 65 years.
- **Disability:** people in this category receive either a disability pension, or the disability support pension.
- **Education** is divided into three levels: Tertiary (degree or diploma), Secondary (completed secondary school), and Less than Secondary (did not complete secondary school).
- **Relative Expenditure:** this component of Affordability is based on the share of household income spent on internet access. An *increase* in the share of income spent on internet services corresponds to a *decrease* in the Index number for Relative Expenditure, and vice versa.

Australia: The National Picture

Findings

The ADII ('the Index') reveals a wealth of new information about digital inclusion in Australia. At a national level, digital inclusion is steadily increasing.

Over three years, from 2014 to 2016, we have seen marked improvement in some dimensions of the Index – for example, a steady rise in overall Access. In other areas, progress has fluctuated or stalled. And in some cases, the 'digital divide' has actually widened over time. An ADII score of 100 represents a hypothetically perfect level of digital Access, Affordability and Ability. Australia's national score has increased from 52.7 in 2014, to 54.5 in 2016. Australia's overall performance indicates a moderate level of digital inclusion, with mixed progress across different Index dimensions, geographic areas and groups.

The Index confirms that digital inclusion is unevenly distributed across Australia. In general, wealthier, younger, more educated, and urban Australians enjoy much greater inclusion. All over the country, digital inclusion rates are clearly influenced by differences in income, educational attainment, and the geography of socioeconomic disadvantage. And over time, some Australian communities are falling further behind.

We also see some interesting regional variations over the three years: the ACT has the highest level of digital inclusion, Victoria's scores are improving faster than any other state or territory, and Tasmania is the only state or territory with declining scores. Some regional cities, such as Wollongong, are much more digitally included than similar-sized cities, such as Newcastle.

Dimensions of digital inclusion: the sub-indices over time

The ADII ('the Index') is made up of three sub-indices, or dimensions, that track different aspects of digital inclusion: Access, Affordability, and Digital Ability.

Access is about how and where we access the internet, the kinds of devices we have, and how much data we use. Affordability is about how much data we get for our dollar, and how much we spend on internet services as a proportion of our income. Digital Ability is about our skill levels, what we actually do online, our attitudes towards technology, and our confidence in using it. Taken together, these measures give us a unique, multi-faceted picture of digital inclusion.

Over time, the rise in Australia's overall ADII score has been driven by improvements in Access (from 62.2, to 63.7, to 66.3) and Digital Ability (from 42.4, to 44.6, to 46.0). However, our Index's Affordability score declined (53.5, to 52.0, to 51.2), for the reasons outlined below.

On a national scale, Access is relatively strong, while Digital Ability is relatively weak. Affordability may cause particular concern in the case of digitally excluded groups, unless the trend of increasing Relative Expenditure (see below) can be reversed. There is scope for improvement across all three dimensions of the Index, but Digital Ability appears to present the greatest opportunity for an investment of effort and resources.

Access

All three components of Access have improved steadily over time: Internet Access was already relatively high in 2014, and has

improved (from 82.7, to 84.1, to 84.4), while Internet Technology (from 62.3, to 64.7, to 68.8) and Internet Data Allowance (from 41.5, to 42.2, to 45.8) started from lower bases and have improved more markedly.

This reflects several simultaneous developments over the past three years: improvements to network infrastructure, the proliferation of connected consumer devices, especially smart phones, and growing demand for data as Australians spend more time, and do more things, online.

Affordability

The Affordability measure is the only dimension to have registered a decline since 2014, but this outcome does not simply reflect rising costs. In fact, internet services are becoming comparatively less expensive – but at the same time, Australians are spending more on them.

Nationally, Value of Expenditure – a key component of our Affordability measure – has increased steadily over three years (from 51.0, to 50.6, to 54.5). The overall decline in the Affordability measure has occurred because, over time, the growth in expenditure on internet access has outpaced the growth in incomes. As a result, despite value having increased, the share of household income spent on internet services has also increased (up 0.17 per cent since 2014).

In simple terms, this higher spending likely reflects the growing importance of the internet in everyday life. However, if this upward trend in Relative Expenditure scores continues, it may have negative effects on the digital inclusion and welfare of less wealthy Australians, because they have less discretionary income to spend. For Australia's more digitally excluded groups (see page 9), the gap in Affordability scores is now widening.

Digital Ability

At a national level, all three components of Digital Ability improved steadily over time: Attitudes (from 46.0, to 47.8, to 49.0), Basic Skills (from 47.2, to 49.9, to 51.6), and Activities (from 34.2, to 36.2, to 37.3). All three rose from a low base in 2014, especially Activities (which are more advanced than Basic Skills).

These results reflect the rapid pace of change in digital technologies, the emergence of new applications, and the proliferation of new devices and online services. While Australians report high interest in using the internet, they also find it hard to keep up with new technologies, and relatively few users engage in more advanced activities. This suggests there is scope to further improve Digital Ability.

Geography: digital inclusion in the states, territories and regions

Geography plays a critical role in the uneven distribution of digital inclusion in Australia. Our data reveals differences between rural and urban areas, and this 'geographic digital divide' is largely due to gaps in Digital Ability and Affordability.

Digital inclusion is now 6.6 points higher in capital cities than in country areas (56.8 versus 50.2). The overall 'Capital–Country gap' has widened marginally over time (from 6.0, to 6.7, to 6.6), but this trend is not consistent across the three sub-indices.

Nationally, the Access gap for Capital–Country has actually narrowed marginally (from 6.9, to 6.0, to 5.9), while the Affordability (from 5.3, to 6.2, to 7.2) and Digital Ability (5.4, to 7.8, to 6.7) gaps are widening.

In 2016, the state or territory with the highest score is ACT (59.7, 5.2 points above the national average), followed by Victoria (55.9). The least digitally included is Tasmania (48.2, or 6.3 points below the national average), followed by South Australia (51.6).

Australia’s least digitally included regions are NSW’s Hunter region (41.2), North West Queensland (43.4), Northern Victoria (43.8), Eyre in South Australia (45.6), Southern Tasmania (45.7), and much of regional WA (‘Other WA’, 47.4).

Digital inclusion in regional centres

The Index provides data for a number of regional communities.

On average, the digital inclusion scores for regional communities are lower than those of their capital city counterparts. The average score for capital cities across Australia (56.8) is 4.1 points higher than the average of the regional centres cited in the table below (51.7).

Regional centre	Digital Inclusion Index
Gold Coast	52.7
Wollongong	56.3
Newcastle	51.8
Geelong	51.5
Townsville	51.5
Gosford	48.7
Cairns	49.2

Gosford (48.7) has the lowest ADII score of the regional communities profiled here. One positive finding is Wollongong’s high score (56.3), which places the city ahead of Perth (55.4), Adelaide (52.8) and Hobart (49.9), and almost on par with Brisbane (56.4).

The variation between regional cities is a significant finding. There is scope for further research into the factors contributing to the digital inclusivity of regional centres.

Demography: digital inclusion and socioeconomic groups

Income, employment and education

The Index also illuminates the social and economic aspects of digital inclusion in Australia. In general, digital inclusion increases markedly as income rises – with one exception. The lowest income bracket (Q5) includes many teenagers and young adults whose income is low, but who live at home with their parents, and so enjoy greater connectivity.

There is a ‘digital divide’ between richer and poorer Australians. In 2016, the second-lowest income bracket, Q4, has the lowest ADII score 47.6 of any income quintile (6.9 points below the national average), while the highest income bracket, Q1, is on 63.6 (9.1 points above the national average).

Scores for income quintiles Q1, Q2, and Q5 all increased steadily over the three years. While Q3 and Q4 saw overall increases, both experienced a slight decrease in 2015, which is likely due to a dip in the Affordability index number for that year.

There is also a clear ‘employment gap’ in digital inclusion. The ADII score for people not in paid employment is now 48.1 (6.4 points below the national average), while for full-time workers it is 60.3 (5.8 above national). Over time, the gap between these two groups has widened only marginally (from 11.5, to 12.2).

An ‘education gap’ is also clearly evident. People with ‘less than secondary education’ (did not complete secondary school) scored 44.6 (9.9 points below the national average), those with secondary education scored 55.5 (slightly above the national average), while tertiary-educated people scored 60 (5.5 above the national average).

Other potentially excluded groups

Digital inclusion tends to decline with age, particularly for senior Australians. People aged 14–49 all have similar scores, ranging from 59.4 to 58.5 (roughly 5 points above the national average). People over 50 are less digitally included, on 52.6 (or 1.9 points below the national average), while those aged 65+ are by far the least digitally included, on 41.6 (or 12.9 points below the national average). Over time, these ‘age gaps’ have remained fairly steady.

In 2016, Australians with disability have relatively low digital inclusion (44.4, or 10.1 points below the national average). However, their score has improved steadily over three years (by 2.6 points since 2014), outpacing Australia’s average increase over that period (1.8 points).

Indigenous Australians also have relatively low digital inclusion (46.6, or 7.9 points below the national average). Their score has improved by 1.6 points since 2014 (against a national average increase of 1.8 points). We note that Roy Morgan’s data collection does not extend to remote Aboriginal communities, where high levels of geographic isolation and socioeconomic disadvantage pose real challenges for digital inclusion. More detailed research is required to gain a clearer understanding of digital inclusion in these communities.

Australian men and women have similar levels of digital inclusion, close to the 2016 national average of 54.5 (women on 53.4, men on 55.7). However, within the Digital Ability sub-index, we see a marked difference in their attitudes towards learning about new technology (women scored 6.8 points less than men).

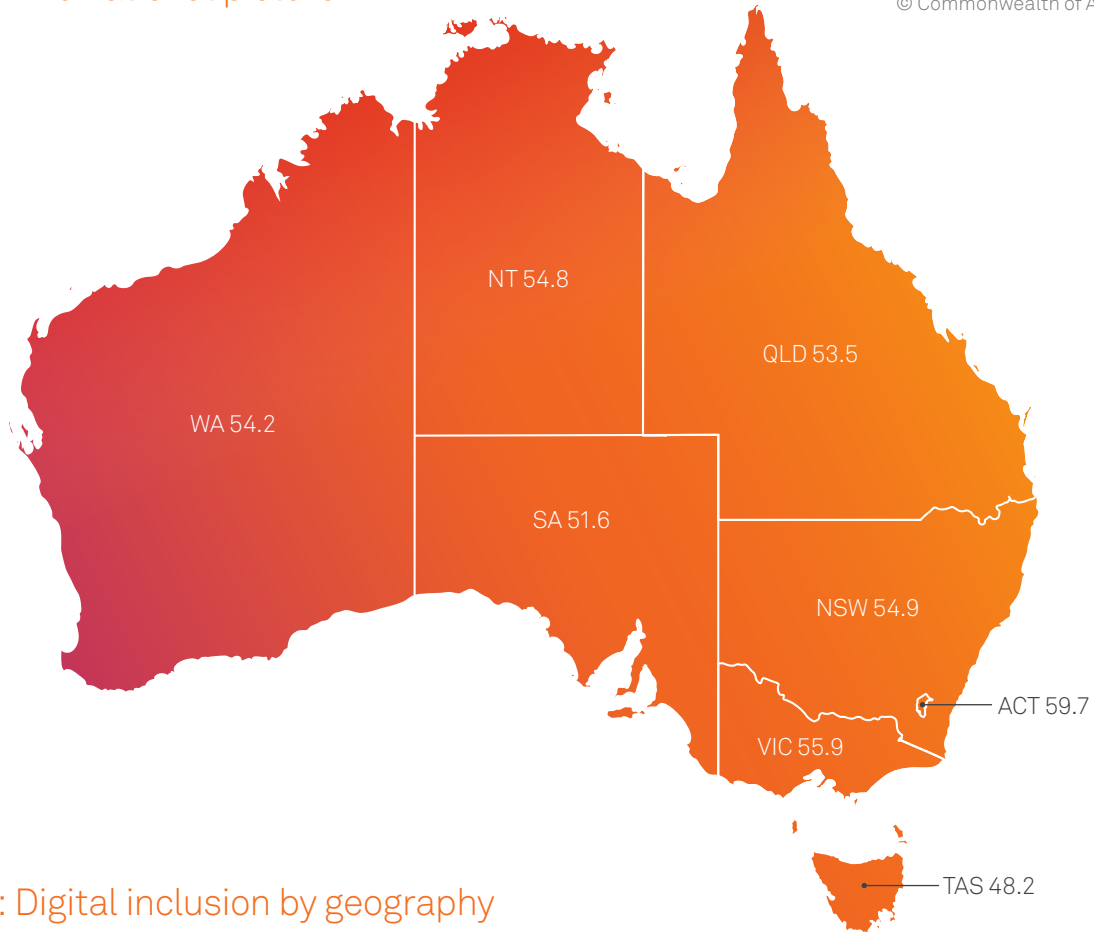
Australians who speak a first language other than English (LOTE) have a relatively high level of digital inclusion (57.9, or 3.4 points above the national average). This has improved steadily since 2014 (by 1.3 points), but by slightly less than the national average increase over that period (1.8 points). This is a highly diverse group, so care should be taken in interpreting this overall finding.

For Australia’s more digitally excluded communities, the Digital Ability and Access gaps are narrowing. However, the Affordability gap is widening, and this poses a real concern for these groups.

Over three years, Access scores increased for seniors (up 6.6 points), people with disability (up 4.6 points), and Indigenous people (up 5.2 points). Access rose 4.1 points nationally over that period. Digital Ability also increased for Indigenous people (up 4.3 points), seniors (up 5.5 points), and people with disability (up 7.7 points). Digital Ability rose 3.6 points nationally.

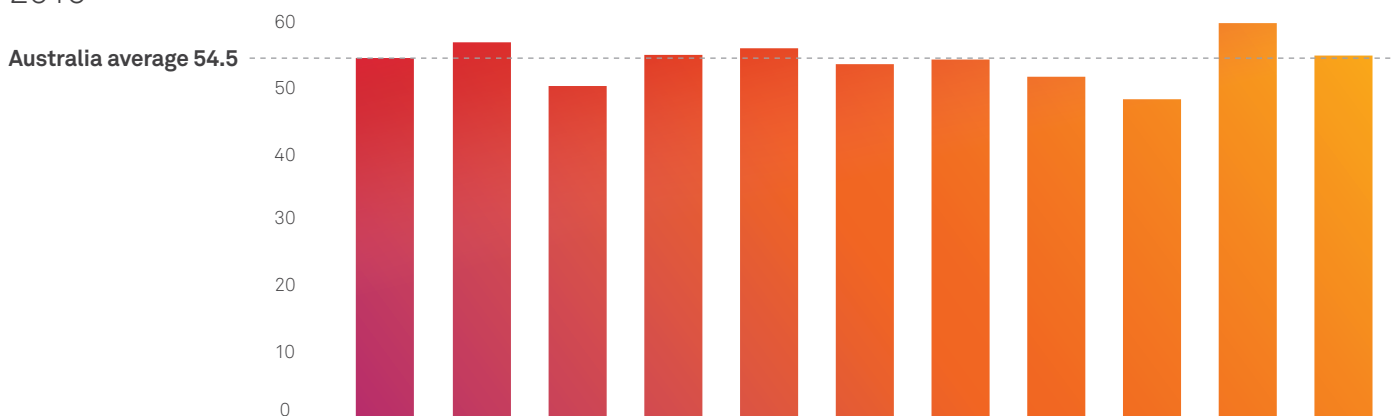
However, the Affordability index number fell markedly for seniors (down 6.8 points) and people in the Q4 income bracket (down 8 points), and also declined for Indigenous people (down 4.7 points) and people with disability (down 4.4 points). The Affordability index number fell just 2.3 points nationally over that period, a decline due mainly to people spending a higher proportion of their household income on digital services.

More information about the ADII, along with a full set of data tables, is available at www.digitalinclusionindex.org.au



Australia: Digital inclusion by geography

2016



April 2015 – March 2016	Australia	Capitals	Country	NSW	VIC	QLD	WA	SA	TAS	ACT	NT
ACCESS											
Internet Access	84.4	86.2	81.1	84.2	85.8	84.3	83.5	82.3	80.5	87.9	84.3
Internet Technology	68.8	70.7	65.1	68.2	71.0	68.3	67.8	66.1	65.0	72.1	71.3
Internet Data Allowance	45.8	48.3	41.2	45.5	47.8	45.6	44.8	43.6	38.6	47.6	47.8
	66.3	68.4	62.5	65.9	68.2	66.1	65.4	64.0	61.4	69.2	67.8
AFFORDABILITY											
Relative Expenditure	47.9	49.6	44.7	49.0	47.7	45.7	50.5	45.6	43.2	53.5	50.3
Value of Expenditure	54.5	57.9	48.2	55.9	56.2	53.4	53.0	49.5	45.0	57.8	54.9
	51.2	53.7	46.5	52.5	52.0	49.6	51.8	47.5	44.1	55.7	52.6
DIGITAL ABILITY											
Attitudes	49.0	51.2	45.0	50.0	50.1	48.3	46.5	46.8	43.3	56.0	47.5
Basic Skills	51.6	54.0	47.3	51.4	53.8	50.8	51.8	48.8	42.7	60.2	48.1
Activities	37.3	39.8	32.7	37.4	39.0	36.0	37.7	33.9	31.1	47.0	36.1
	46.0	48.3	41.6	46.3	47.6	45.0	45.3	43.2	39.0	54.4	43.9
DIGITAL INCLUSION INDEX	54.5	56.8	50.2	54.9	55.9	53.5	54.2	51.6	48.2	59.7	54.8

Source: Roy Morgan Research, April 2015 - March 2016.

Australia: Digital inclusion by demography

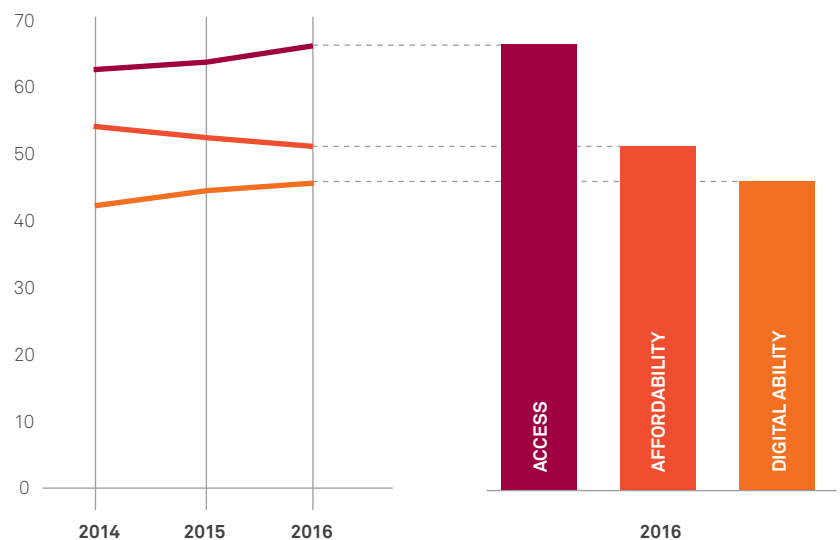


Source: Roy Morgan Research, April 2015 - March 2016.

Australia: Digital inclusion sub-indices

Australia	2014	2015	2016
ACCESS	62.2	63.7	66.3
AFFORDABILITY	53.5	52.0	51.2
DIGITAL ABILITY	42.4	44.6	46.0
DIGITAL INCLUSION INDEX	52.7	53.4	54.5

Source: Roy Morgan Research, April 2013 - March 2016.



New South Wales

Findings

For the year ending March 2016, the ADII score for New South Wales (NSW) was 54.9, slightly above the Australian average of 54.5. Over the three years measured to date, NSW's digital inclusion increased steadily, from 53.2 in 2014, to 53.6 in 2015, to 54.9 now.

Over time, NSW's ADII score was consistently above the national average. On our three key dimensions (the sub-indices), while its Access scores remained fairly steady, NSW had a slightly better Affordability index number than Australia as a whole. Its Digital Ability scores were slightly below the national average for the first two years, but are now slightly higher.

Geography

Within NSW, Sydney scored highest, on 57.5, well above the national average (but one point below Melbourne), while Country NSW scored just 50.1.

Across regional NSW, the highest scores are held by the state's two second-largest cities, Wollongong (56.3) and Newcastle (51.8). Against the national average (54.5), Wollongong's score is particularly significant. The city's overall score (56.3) is slightly below Sydney's (57.5), but on Access, Wollongong (69.6) is ahead of Sydney (68.1).

The Hunter region recorded the lowest score, both statewide and nationally: just 41.2. This is well below the next-lowest NSW region (48.4, for the Murray and Murrumbidgee), and also below Australia's other lowest-scoring regions: North West Queensland (43.4), Northern Victoria (43.8), Eyre in SA (45.6), Southern Tasmania (45.7), and much of regional WA ('Other WA', 47.4). The contrast between the Wollongong (56.3) and Hunter region (41.2) scores is particularly notable.

Demographics

Reflecting the national figures, digital inclusion in NSW generally increases in line with income. Again, an exception is seen in the lowest income bracket (Q5). This bracket includes teenagers and young adults who live with their parents and don't work full-time, and so enjoy greater connectivity.

Over three years, residents in the highest income bracket (Q1) consistently scored above both the NSW and Australian averages. Over time their scores also increased at a higher rate than both those averages (from 59.5, to 62.9, to 64.1). People in the second-lowest income bracket (Q4) scored well below both the NSW and Australian averages, experiencing a modest rise over time (from 43.8, to 44.8, to 45.4).

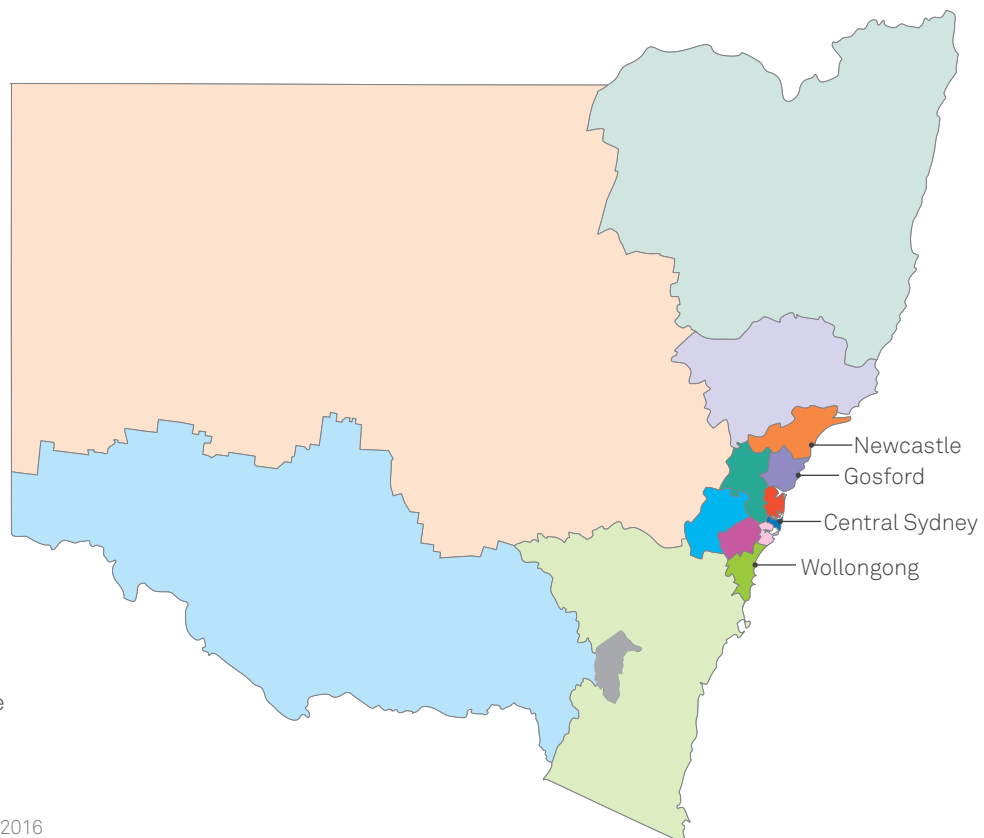
Again reflecting national patterns, digital inclusion in NSW is clearly linked to employment, education and age. Full-time workers had steadily increasing scores (58.7, 60, and 62), while people not in paid employment scored significantly lower (46.7, 47.1, and 47.4).

In 2016, tertiary-educated people in NSW scored 60.5 (against a national average of 60 for that group), while those with less than secondary education scored 43.8 (against 44.6 nationally for that group).

Younger people (aged 14–24 and 25–34) scored 60.4 and 59.1 respectively, against a NSW average of 54.9. On Digital Ability they scored 54 and 57.3 respectively (against a NSW average of 46.3). The 25–34 year olds had the highest Digital Ability scores of any NSW age-group. Only the highest income earners (57.1), full-time workers (54.6) and tertiary-educated people (54.6) scored higher on Digital Ability than the 14–24 year olds. On the Affordability

NSW regions

- North Sydney
- North West Sydney
- South Sydney
- Central Sydney
- South West Sydney
- Outer West Sydney
- Gosford
- Newcastle
- Hunter
- North East NSW
- Wollongong
- South Coast NSW
- North West NSW
- Murray & Murrumbidgee



Source: Roy Morgan Research
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index number, seniors scored lowest of any age-group (on 47.1), while 25–34 year olds scored second-lowest, on 49 (3.5 points below the state average for that dimension).

People aged 35–49 have the highest ADII score of any age-group in NSW (60.6), just marginally above the 14–24 year olds (60.4), while seniors (aged 65+) have the lowest (41.4), well below the state average of 54.9. NSW seniors have low Access and Affordability index numbers, 50 and 47.1 respectively (against state averages of 65.9 and 52.5). Their Digital Ability is particularly low: just 27.2 (against 46.3 statewide).

Echoing national trends, the NSW data points to several groups of people who are the most digitally excluded. In ascending order, they are: people with disability (on 40.8), seniors (41.4), people with less than secondary education (43.8), people in the second-lowest (Q4) income bracket (45.4), people not in paid employment (47.4), and Indigenous people (49.7).

People with disability in NSW have the lowest score of any socioeconomic group statewide (40.8, well below the national disability figure of 44.4). Over time their score has fluctuated, from 41.4 in 2014, up to 44.7, then down to 40.8.

In 2016 Indigenous people in NSW scored 49.7, below both the NSW (54.9) and national (54.5) averages, but above the national Indigenous score (46.6). However, their score has improved significantly over time, from 45.5 in 2014, to 49.7 in 2016.

In line with national findings, people in NSW from a LOTE background scored 58.9, well above both the NSW (54.9) and Australian (54.5) averages, and slightly above the LOTE national average (57.9). Their score rose by 1.6 points over three years. The LOTE community is a highly diverse group, and care should be taken in interpreting findings.

NSW: Digital inclusion by geography

April 2015 – March 2016	Australia	NSW	Sydney	NSW country	Sydney Regions						Newcastle	Hunter	North East NSW	Wollongong	South Coast NSW	North West NSW	Murray & Murrumbidgee	
					North	North West	South	Central	South West	Outer West	Gosford							
ACCESS																		
Internet Access	84.4	84.2	86.4	80.1	88.0	85.3	87.1	90.7	84.3	82.0	80.3	81.4	68.6	79.3	87.3	80.2	77.5	79.5
Internet Technology	68.8	68.2	70.5	64.0	71.2	70.8	72.7	72.6	67.2	68.5	65.6	64.1	52.6	64.8	71.8	61.6	63.4	61.4
Internet Data Allowance	45.8	45.5	47.4	41.9	46.8	48.8	49.6	49.4	47.7	42.6	38.8	43.0	31.5	40.8	49.8	37.7	44.1	41.3
	66.3	65.9	68.1	62.0	68.6	68.3	69.8	70.9	66.4	64.4	61.6	62.8	50.9	61.6	69.6	59.8	61.7	60.7
AFFORDABILITY																		
Relative Expenditure	47.9	49.0	52.0	43.5	56.0	51.8	53.2	55.6	44.5	53.3	44.1	43.7	45.1	43.9	42.5	45.7	44.6	38.3
Value of Expenditure	54.5	55.9	59.1	50.1	60.2	61.3	64.1	59.4	59.4	53.5	44.4	52.6	36.7	50.5	60.3	44.5	47.2	48.2
	51.2	52.5	55.5	46.8	58.1	56.5	58.6	57.5	51.9	53.4	44.2	48.1	40.9	47.2	51.4	45.1	45.9	43.3
DIGITAL ABILITY																		
Attitudes	49.0	50.0	52.8	44.9	53.6	52.0	56.9	56.7	50.1	45.1	44.1	47.2	35.7	43.3	48.3	43.3	43.1	49.7
Basic Skills	51.6	51.4	53.5	47.4	55.1	52.0	54.5	62.0	46.6	49.2	45.3	51.9	33.5	46.3	55.4	45.4	44.3	45.0
Activities	37.3	37.4	40.1	32.6	40.8	37.6	42.5	49.8	33.0	34.9	31.7	34.3	26.5	31.5	40.0	33.8	28.8	29.3
	46.0	46.3	48.8	41.6	49.8	47.2	51.3	56.1	43.2	43.1	40.4	44.5	31.9	40.4	47.9	40.8	38.7	41.4
DIGITAL INCLUSION INDEX	54.5	54.9	57.5	50.1	58.8	57.4	59.9	61.5	53.9	53.6	48.7	51.8	41.2	49.7	56.3	48.6	48.8	48.4

Source: Roy Morgan Research, April 2015 - March 2016.

NSW: Digital inclusion by demography

April 2015 – March 2016	NSW	Income Quintiles					Employment			Education			Age					Disability	Indigenous	LOTE
		Q1	Q2	Q3	Q4	Q5	Full-Time	Part-Time	None	Tertiary	Secondary	Less	14-24	25-34	35-49	50-64	65+			
ACCESS																				
Internet Access	84.2	93.1	85.9	82.6	72.9	84.9	91.5	88.1	75.8	90.1	85.8	70.9	91.7	88.0	91.5	82.9	66.1	67.9	78.2	87.7
Internet Technology	68.2	76.6	70.2	66.2	59.7	66.6	74.8	71.0	61.1	73.2	69.3	57.4	72.2	71.9	73.9	67.2	55.1	55.0	66.6	69.4
Internet Data Allowance	45.5	54.2	49.6	43.1	36.4	42.1	54.4	48.7	36.1	51.6	46.2	32.7	51.3	53.1	52.3	41.8	28.8	29.7	47.6	48.2
	65.9	74.6	68.6	63.9	56.4	64.6	73.6	69.3	57.7	71.6	67.1	53.6	71.8	71.0	72.5	64.0	50.0	50.9	64.1	68.4
AFFORDABILITY																				
Relative Expenditure	49.0	58.1	46.3	43.3	42.1	51.7	52.2	47.9	46.6	49.5	45.5	51.5	50.2	41.6	50.2	50.6	51.1	36.4	41.9	51.2
Value of Expenditure	55.9	63.3	59.3	54.3	45.1	56.3	63.2	56.3	49.1	61.2	58.2	43.3	60.7	56.4	62.7	54.9	43.1	41.8	46.1	61.0
	52.5	60.7	52.8	48.8	43.6	54.0	57.7	52.1	47.9	55.3	51.8	47.4	55.4	49.0	56.4	52.7	47.1	39.1	44.0	56.1
DIGITAL ABILITY																				
Attitudes	50.0	56.8	48.9	47.4	41.9	53.9	54.9	53.5	44.0	55.1	50.7	39.3	67.4	59.6	52.1	41.8	32.5	41.9	48.0	58.6
Basic Skills	51.4	65.6	54.8	49.3	38.6	45.8	62.4	57.3	38.8	61.6	51.6	31.0	54.4	62.8	61.9	47.7	29.1	33.8	43.2	54.4
Activities	37.4	48.9	39.9	34.3	28.2	33.2	46.6	41.9	27.3	47.1	35.3	20.9	40.2	49.6	44.8	32.8	19.9	21.3	31.5	43.4
	46.3	57.1	47.9	43.7	36.2	44.3	54.6	50.9	36.7	54.6	45.9	30.4	54.0	57.3	52.9	40.8	27.2	32.3	40.9	52.1
DIGITAL INCLUSION INDEX	54.9	64.1	56.4	52.1	45.4	54.3	62.0	57.4	47.4	60.5	54.9	43.8	60.4	59.1	60.6	52.5	41.4	40.8	49.7	58.9

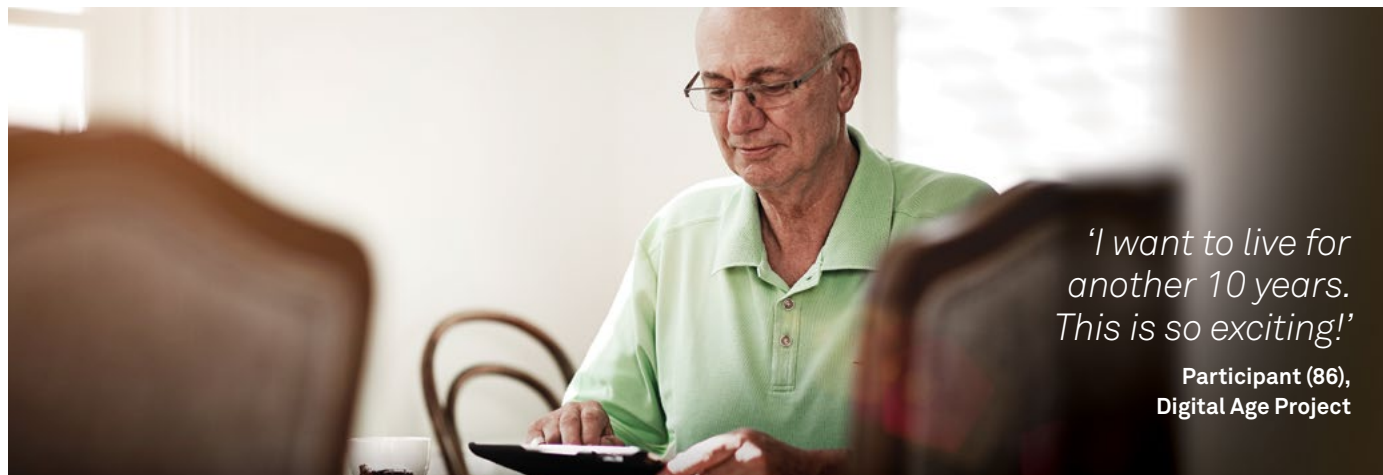
Source: Roy Morgan Research, April 2015 - March 2016.

Case Study 1

Connected and Included: Stories of Digital Inclusion

The Digital Age Project:

Helping older social housing residents use the internet



'I want to live for another 10 years. This is so exciting!'

**Participant (86),
Digital Age Project**

Who?

The Digital Age Project focused on improving the digital skills and confidence of older people living in social housing. The project team asked: what are the best strategies to increase digital know-how within these communities? And what kinds of benefits might flow from these new skills?

The project took place within three communities of older social housing tenants in Coffs Harbour, a town in regional NSW. Most participants were aged over 55, and the eldest was 86. Researchers at Southern Cross University worked with staff from Housing NSW, and the project was supported by a grant from the Australian Communications Consumer Action Network (ACCAN).

Why?

Public and social housing tenants tend to be older, less wealthy and more likely to have a disability than the general population. Internet use amongst older Australians remains relatively low and people with disabilities may face a range of challenges in using digital technologies. Past research has found that improving digital skills can combat social isolation and help people make more informed decisions.

How?

Running over an 18-month period in 2014–2015, the Digital Age Project used a range of strategies to encourage older residents to build their digital skills and confidence. Strategies included a community website with a simplified online portal, 24-hour internet access, onsite training and support, and accessible materials. The project also encouraged informal learning and knowledge-sharing amongst residents.

A traditional community common-room was fitted out with a high speed broadband connection, two recycled desktop computers, a scanner and a printer. Tablet computers were provided on loan for participants to share and take home, and training was combined with collaborative online games and social activities, including 'tea and scones' events.

At the project's outset, a baseline survey measured the participants' existing digital skills and confidence, including their attitudes to technology. Initially residents reported low and infrequent levels of digital engagement, with many citing lack of confidence as the reason they didn't use the internet. Later surveys tracked people's progress and the success of the strategies used. Data about computer and tablet usage was also tracked, and this will continue until April 2017.

Outcomes

Residents reported strong improvements in their use and understanding of digital technology and said they felt more confident of their own digital skills and abilities. The project broadened their horizons and offered social benefits, including better connection to family and friends and more social interactions with fellow residents.

While preliminary, the results also suggest that projects of this type can help create a shared sense of purpose and renewed feeling of community. Staff from Housing NSW have also reported an increased use of the common room. Two years after the project began, participants still meet every Thursday, and continue to include other residents in ongoing 'tea and scones' gatherings.

Find out more:

www.accan.org.au/files/Grants/Digital_Age_final-web-accessible.pdf

Case Study 2

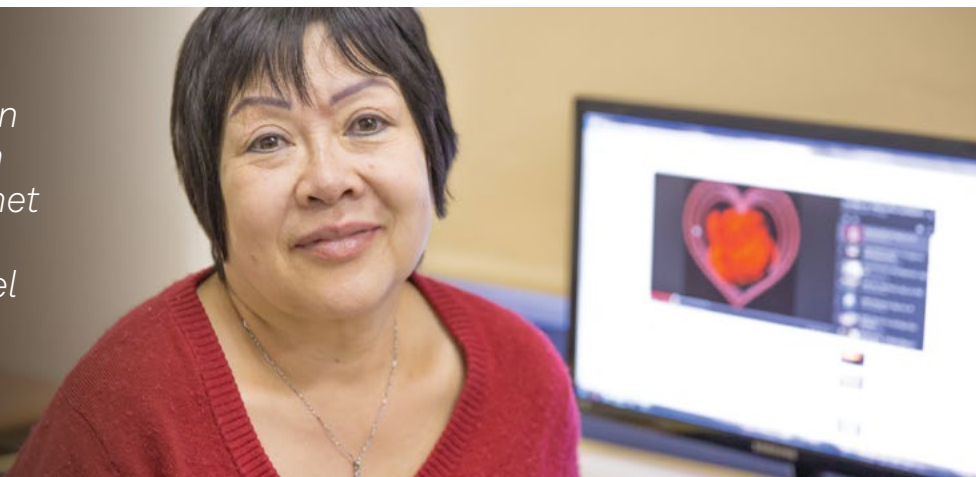
Connected and Included: Stories of Digital Inclusion

Wired Community@Collingwood:

Using connectivity to improve the lives of public housing residents

'The computer has been fantastic, because I am so isolated... The internet keeps me in touch with what is happening. I feel included in the world.'

**Participant,
Wired Community@Collingwood**



Outcomes

A two-year independent evaluation found the project was very successful in increasing the community's access to and use of technology. Around 54 per cent of residents used computers for the first time, while around 60 per cent used the low-cost internet service.

The project also made a real difference to people's lives. The social enterprise employed residents in paid administration and help-desk roles, while others worked as volunteers, updating intranet content and promoting the project to fellow residents. Staff became familiar local faces, offering real-time support and training.

Being able to use email, online news and social networking sites made residents feel more connected with the world, while culturally and linguistically diverse (CALD) participants used email and Facebook to connect with distant family and friends.

Wired Community@Collingwood, in collaboration with Drummond Street Services and Spirit Telecom, continues to enable residents to connect with their own community, with other housing estate residents in nearby Richmond and Fitzroy, and with the world beyond.

Find out more:

www.apo.org.au/resource/wiredcommunitycollingwood-final-evaluation-report

Who?

Launched in August 2008, Wired Community@Collingwood began life as a three-year project aimed at improving the digital skills and online access of 620 households in a Collingwood public housing estate, in inner Melbourne.

The estate provides low-cost housing to a diverse mix of communities who face many social and economic challenges, including recent migrants and refugees. Residents speak over 30 languages, including Vietnamese, Cantonese, Somali, Greek and Turkish. Before the project began, just over 50 per cent of households had access to telephone services.

The project sought to improve the community's circumstances by providing access to digital technologies, along with education and employment opportunities. It was initiated by [Infoxchange](#), a not-for-profit social enterprise delivering technology for social justice, working with the Victorian government, Yarra City Council and supporters including Microsoft, ANZ, Telstra and National Australia Bank.

Why?

In 2002 the Collingwood estate became part of the [Neighbourhood Renewal program](#). An initiative of the Victorian government at the time, Neighbourhood Renewal was designed to rally the resources and ideas of residents, governments, businesses and community groups to tackle disadvantage in areas with high concentrations of public housing.

Recognising that many public housing residents cannot afford a computer, internet services or computer training, Neighbourhood Renewal projects often focused on providing these communities with digital infrastructure and access to technology, education and employment opportunities. Wired Community@Collingwood was one such project.

How?

This project took a 'whole-of-community' approach to digital inclusion, giving residents access to computer hardware, software, low-cost internet and technical support. A free, network-ready computer was installed in each apartment, and residents could use a community website and estate-wide intranet. Internet service fees were used to fund the Wired Office, an on-site social enterprise that provided direct employment and volunteering opportunities.

Victoria

Findings

For the year ending March 2016, the ADII score for Victoria is 55.9. This is the second-highest score of any state and territory in Australia, behind the ACT (59.7).

Over the three years measured to date, digital inclusion in Victoria has increased more than in any other state or territory, rising from 53.3 in 2014, to 55.9 today. This is a 2.6-point increase over three years, against a national increase of 1.8 points.

Looking at our three dimensions, Victoria's Access and Digital Ability scores remained relatively high over time. For the first two years, its Affordability index number was slightly below the Australian average, but it is now 52 (against 51.2 nationally).

Geography

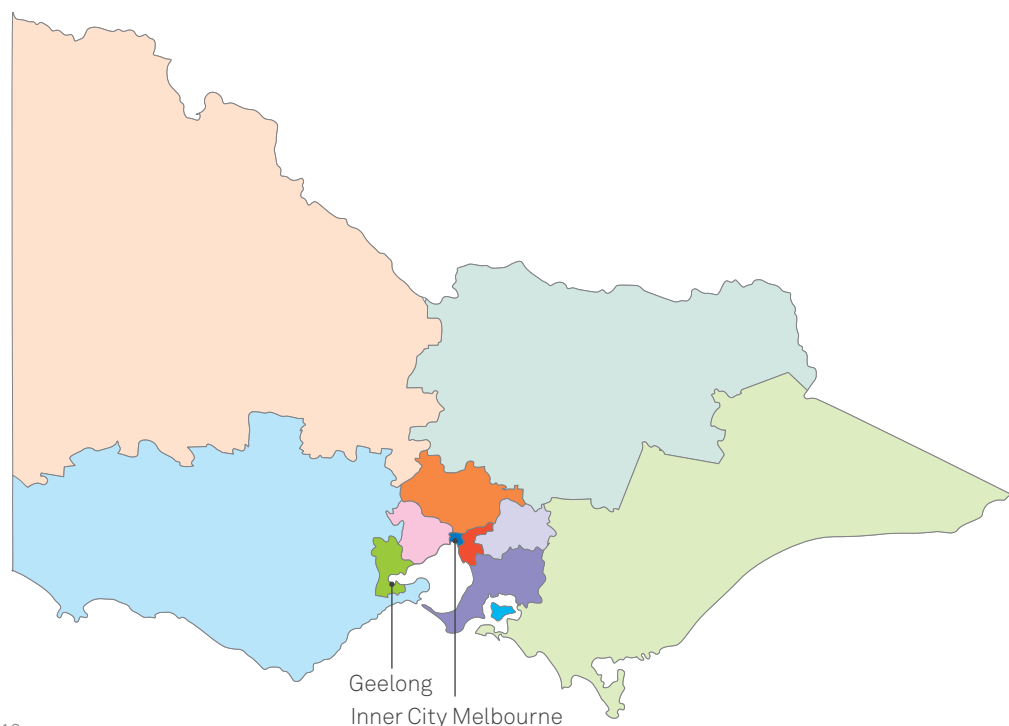
Within Victoria, Melbourne had the highest score, with 58.5 (4 points above the national average, and one point above Sydney).

The most digitally included part of regional Victoria is Geelong (51.5), the state's second-biggest city. Geelong's score is lower than both the national (54.5) and Victorian (55.9) averages, but well above the average for Country Victoria (47.8). Geelong compares closely to Newcastle in NSW (51.8), but scores considerably lower than Wollongong (56.3), also in NSW.

Regionally, Northern Victoria recorded the state's lowest score (43.8), followed by Eastern Victoria (46.7). This places Northern Victoria within the least digitally included regions in Australia, along with the Hunter region in NSW (41.2), North West Queensland (43.4), Eyre in South Australia (45.6), and much of regional WA ('Other WA', 47.4). Northern Victoria scored well below the Victorian Country average across all three sub-indices. The contrast with Melbourne is particularly stark, with Northern Victoria scoring 56 for Access (against Melbourne's 70.7), 41.1 on the Affordability measure (against Melbourne's 54.3), and 34.3 for Digital Ability (against Melbourne's 50.4).

VIC regions

- West Melbourne
- North Melbourne
- Inner City Melbourne
- Central Melbourne
- Outer NE Melbourne
- Outer SE Melbourne
- West VIC
- North West VIC
- North VIC
- East VIC
- Geelong



Source: Roy Morgan Research
© Commonwealth of Australia, 2016

Demographics

Reflecting the national patterns, digital inclusion in Victoria tends to increase as income rises. Again, an exception is seen in the lowest income bracket (Q5), which includes teenagers and young adults who live with their parents and don't work full-time, and so enjoy greater connectivity.

Over the three years, Victorians in the top income bracket (Q1) consistently scored well above both the Victorian and Australian averages (with 61.7, 61.9, and 62.9). This was true across all three sub-indices, or dimensions, of the Index.

Scores for those in the second-lowest income bracket (Q4) remain well below both the Victorian and Australian averages, but they did rise over three years: from 46.2, to 47.3, to 49.7. Victorians in the top income bracket (Q1) scored 56.4 for Digital Ability, while the Q4 earners had a score of just 40.

Again reflecting national patterns, digital inclusion in Victoria is clearly linked to employment, education and age. Over three years, the scores for Victorians working full-time rose steadily (from 58.4, to 58.9, to 61.4), while people not in paid employment had significantly lower scores (47, 48.2, and 49.4).

In 2016 Victorians with a tertiary education scored 61.3 (against 60 nationally for that cohort), while those with less than secondary education scored 46.1 (against 44.6 nationally for this cohort). On Digital Ability, tertiary-educated Victorians scored 55.8, while those with less than secondary education scored just 32.1.

The 2016 figure for Victorians in the two youngest age brackets, 14–24 and 25–34 years, is 60 and 62.6 respectively (against a state average of 55.9). On Digital Ability, Victorians aged 25–34 ranked highest of any age-group (61.5), well above the state's highest income earners (on 56.4).

Echoing national trends, the Victorian data points to several groups of people who are the least digitally included in their state. In ascending order, they are: people aged 65+ (on 42.5), people with less than secondary education (46.1), people with disability (47.9), and people not in paid employment (49.4). All these scores fall well below Victoria's average of 55.9.

For Victorian seniors, both their Access score (52.2) and Affordability index number (48.1) are low (against 68.2 and 52 statewide, respectively). This group's Digital Ability score is particularly low: just 27 (against 47.6 statewide).

The 2016 score for Victorians with disability is 47.9, which is 3.5 points higher than the national disability score (44.4). From 2014 to 2015 this group's score rose 5.3 points, a significant increase.

The 2016 score for Indigenous Victorians is 51.1, below both the Victorian (55.9) and national (54.5) averages, but above the national indigenous score (46.6). Over three years this group's score has risen 3.7 points. It should be noted that the ADII score for Indigenous Victorians is based on a small sample size (<20), so our results may not be an accurate reflection of this group's digital inclusion.

Victorians from a LOTE background scored 58.8, well above both the Victorian (55.9) and Australian (54.5) averages, and slightly above the LOTE national average of 57.9. Scores for this group rose 1.6 points over the three years. The LOTE community is a highly diverse group, and care should be taken in interpreting findings.

VIC: Digital inclusion by geography

April 2015 – March 2016	Australia	VIC	Melbourne	VIC Country	Melbourne Regions						West VIC	North West VIC	North VIC	East VIC	Geelong
					West	North	Inner City	Central	Outer NE	Outer SE					
ACCESS															
Internet Access	84.4	85.8	87.7	79.9	87.1	89.0	93.9	89.5	86.9	82.7	82.6	79.6	74.4	78.4	85.4
Internet Technology	68.8	71.0	73.3	63.6	73.9	72.7	74.3	76.2	72.6	70.2	65.1	64.0	61.3	62.0	65.9
Internet Data Allowance	45.8	47.8	51.1	37.3	52.5	52.2	51.6	52.4	49.3	47.9	37.7	39.5	32.3	36.0	42.8
	66.3	68.2	70.7	60.3	71.2	71.3	73.3	72.7	69.6	66.9	61.8	61.0	56.0	58.8	64.7
AFFORDABILITY															
Relative Expenditure	47.9	47.7	48.6	44.9	50.3	47.3	46.2	52.6	47.4	45.3	46.3	44.4	43.9	44.1	45.8
Value of Expenditure	54.5	56.2	60.1	43.7	58.5	60.5	68.0	63.6	58.0	55.0	47.3	41.8	38.4	41.6	50.7
	51.2	52.0	54.3	44.3	54.4	53.9	57.1	58.1	52.7	50.2	46.8	43.1	41.1	42.8	48.3
DIGITAL ABILITY															
Attitudes	49.0	50.1	52.5	42.5	52.8	50.8	56.4	56.2	50.5	49.5	42.5	44.1	37.9	42.8	46.3
Basic Skills	51.6	53.8	56.7	44.4	56.9	57.1	65.0	58.0	55.7	51.2	49.0	44.0	39.8	43.9	44.3
Activities	37.3	39.0	42.0	29.6	41.7	42.3	50.1	45.1	38.9	36.6	31.7	29.4	25.1	28.9	33.8
	46.0	47.6	50.4	38.8	50.4	50.0	57.1	53.1	48.4	45.8	41.0	39.1	34.3	38.5	41.4
DIGITAL INCLUSION INDEX	54.5	55.9	58.5	47.8	58.7	58.4	62.5	61.3	56.9	54.3	49.9	47.8	43.8	46.7	51.5

Source: Roy Morgan Research, April 2015 - March 2016.

VIC: Digital inclusion by demography

April 2015 – March 2016	VIC	Income Quintiles					Employment			Education			Age					Disability	Indigenous*	LOTE
		Q1	Q2	Q3	Q4	Q5	Full-Time	Part-Time	None	Tertiary	Secondary	Less	14-24	25-34	35-49	50-64	65+			
ACCESS																				
Internet Access	85.8	92.9	88.8	81.6	78.3	86.1	91.4	91.0	77.8	92.3	87.3	72.9	91.4	92.2	91.4	84.9	67.8	76.1	80.0	88.4
Internet Technology	71.0	77.0	74.4	68.5	64.9	69.3	76.6	74.4	63.9	75.5	72.5	61.4	72.2	76.6	76.1	70.7	57.6	62.7	62.4	72.8
Internet Data Allowance	47.8	55.0	51.5	46.9	40.6	44.2	55.8	52.1	38.0	52.9	49.6	36.9	49.1	56.1	53.8	46.8	31.1	41.4	46.2	51.2
	68.2	75.0	71.5	65.7	61.3	66.6	74.6	72.5	59.9	73.6	69.8	57.1	70.9	75.0	73.8	67.5	52.2	60.1	62.9	70.8
AFFORDABILITY																				
Relative Expenditure	47.7	54.5	44.8	40.4	44.2	52.6	47.3	45.1	49.6	46.9	43.3	53.4	51.3	40.2	44.4	49.4	54.2	46.3	52.0	46.8
Value of Expenditure	56.2	60.3	58.6	55.5	51.6	54.9	62.0	61.6	48.2	62.1	57.6	44.7	57.9	62.7	60.5	56.5	42.0	52.4	45.3	62.7
	52.0	57.4	51.7	47.9	47.9	53.7	54.6	53.3	48.9	54.5	50.5	49.0	54.6	51.5	52.5	52.9	48.1	49.3	48.6	54.7
DIGITAL ABILITY																				
Attitudes	50.1	55.2	52.4	45.8	42.8	52.9	55.4	51.4	44.7	55.7	52.2	38.2	62.8	63.3	50.9	43.4	31.6	41.1	59.1	56.8
Basic Skills	53.8	66.5	56.5	48.2	45.1	50.7	63.3	58.3	42.3	63.9	54.3	34.9	58.2	67.0	62.5	49.1	29.7	37.3	36.1	54.0
Activities	39.0	47.4	41.5	34.8	32.0	38.1	46.1	41.9	30.9	47.9	39.0	23.2	42.9	54.1	43.5	34.1	19.8	24.4	30.2	42.1
	47.6	56.4	50.1	42.9	40.0	47.2	55.0	50.5	39.3	55.8	48.5	32.1	54.6	61.5	52.3	42.2	27.0	34.3	41.8	50.9
DIGITAL INCLUSION INDEX	55.9	62.9	57.8	52.2	49.7	55.8	61.4	58.8	49.4	61.3	56.2	46.1	60.0	62.6	59.5	54.2	42.5	47.9	51.1	58.8

Source: Roy Morgan Research, April 2015 - March 2016. *Small sample size.

Queensland

Findings

Queensland's ADII score for the year ending March 2016 is 53.5. Queensland (QLD) has a slightly lower score than the national average (54.5), and ranks sixth out of the eight states and territories.

Over the three years of measurement to date, Queensland's score has risen slightly – from 52.0 in 2014, to 52.5 in 2015, to 53.5 now. This is an increase of 1.5, compared with a national increase of 1.8 points over the same period.

Looking at our three key dimensions (the sub-indices), this increase was driven by improvements in Access (from 62.0, to 62.9, to 66.1) and Digital Ability (from 42.7, to 44.1, to 45.0). However, the Affordability measure declined slightly over three years (from 51.4, to 50.6, to 49.6), reflecting a national pattern of increasing value, offset by increasing relative household expenditure on internet access (see page 8 in the 'National Findings' section for details of this dynamic). This compares with a 2.3 point decline in the national Affordability measure over the same period.

Geography

In 2016, Brisbane's digital inclusion score is 56.4. This is 3.1 points above the average score for Queensland as a whole (53.3), and 5.6 points above the average score for country areas across that state (50.8). Compared with the larger east coast cities, Brisbane scores less than both Melbourne (58.5) and Sydney (57.5).

Queensland's most digitally included sub-region is Brisbane West (on 63.1, or 9.6 points above the QLD average). Its least digitally included sub-region is North West Queensland,

on 43.4 (or 10.1 points below the QLD average). This score places North West Queensland amongst the least digitally included regions in Australia, along with NSW's Hunter region (41.2), Northern Victoria (43.8), Eyre in South Australia (45.6), Southern Tasmania (45.7), and much of regional WA ('Other WA', 47.4).

Comparing Brisbane's score with the average for Country QLD, the 'Capital–Country digital divide' has widened just slightly over three years (from 4.8, to 4.5, to 5.6). The Capital–Country Access gap has narrowed steadily over time (from 6.8, to 4.3, to 4.9), while the gaps for Affordability (from 3.8, to 4.6, to 5.9) and Digital Ability (3.9, to 4.6, to 5.8) have both widened.

Demographics

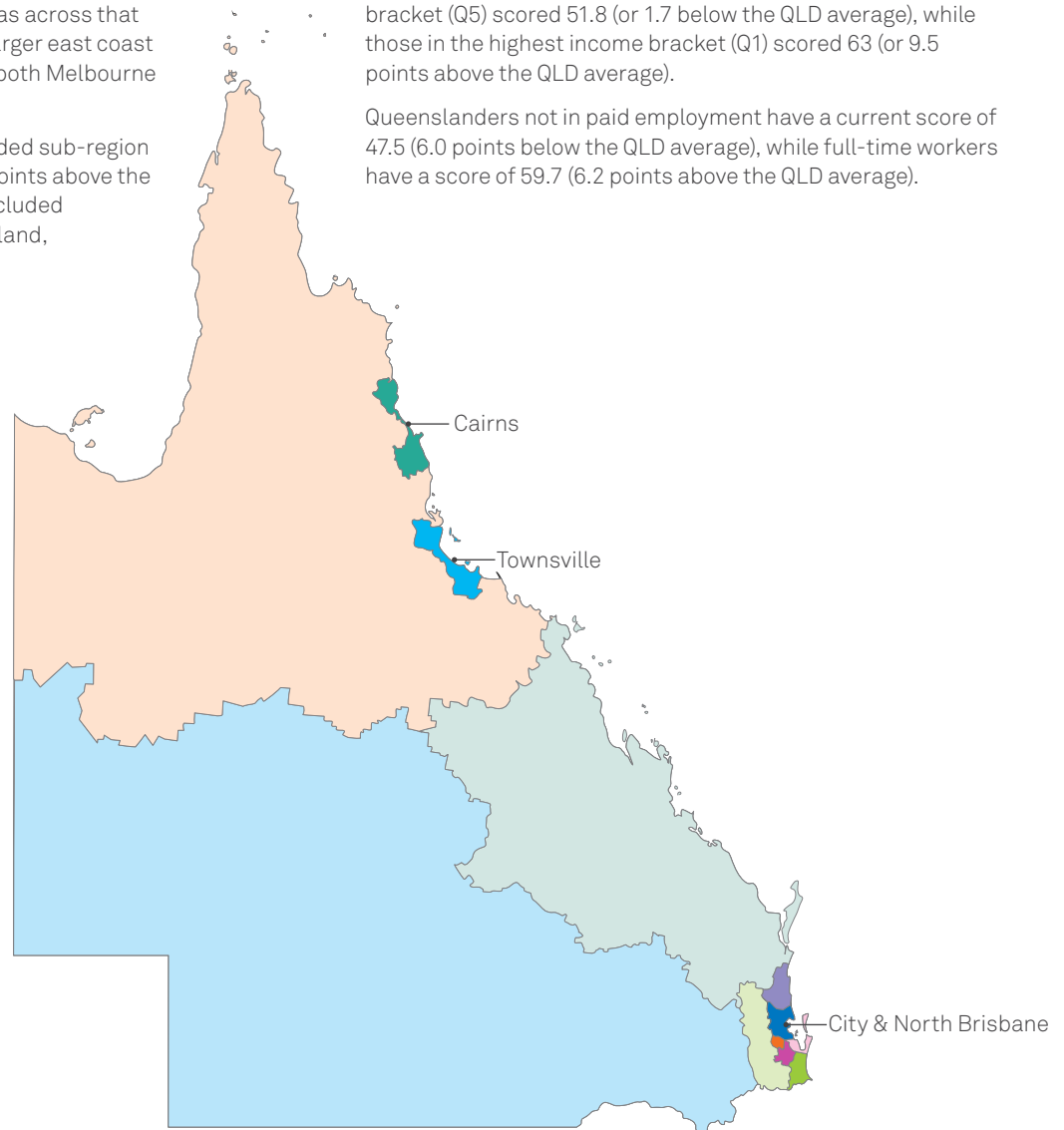
Echoing patterns in the national figures, digital inclusion in Queensland tends to increase as income, education, and employment levels rise. An exception is seen in the lowest income bracket (Q5), which includes teenagers and young adults who live with their parents and don't work full-time, and so enjoy greater connectivity.

In 2016 Queenslanders in the second-lowest income bracket (Q4) had the lowest score of any income group, on 46.5 (or 7 points below the QLD average). People in the lowest income bracket (Q5) scored 51.8 (or 1.7 below the QLD average), while those in the highest income bracket (Q1) scored 63 (or 9.5 points above the QLD average).

Queenslanders not in paid employment have a current score of 47.5 (6.0 points below the QLD average), while full-time workers have a score of 59.7 (6.2 points above the QLD average).

QLD regions

- City & North Brisbane
- West Brisbane
- South Brisbane
- East Brisbane
- Outer Brisbane
- Gold Coast
- Sunshine Coast
- Central & SW QLD
- Coastal QLD
- Cairns
- Townsville
- North West QLD



Source: Roy Morgan Research
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Echoing national trends, the QLD data points to several groups of people who are the least digitally included in their state. In ascending order, they are: people with less than secondary education (41.2), seniors aged 65+ (41.3), Indigenous Queenslanders (42.0), and people in the Q4 income bracket (46.5).

In 2016 Queenslanders with less than secondary education scored 41.2 (or 12.3 points below the QLD average), while tertiary-educated Queenslanders scored 59.4 (5.9 points above the QLD average). Over time, the 'education gap' has widened.

Scores did not differ greatly between the three youngest age-groups: people aged 14–24 (on 57.6), those aged 25–34 (on 59.6), and those aged 35–49 (on 57.3); all against a QLD average of 53.5. However, scores declined for people aged 50–64 (on 51.0, or 2.5 points below the QLD average), and dropped markedly for seniors (on 41.3, or 12.2 points below the QLD average).

Queenslanders with disability have relatively low digital inclusion (48.0, or 5.5 points below the QLD average). However, their score has improved markedly (by 5.1 points) over three years, outpacing the statewide increase over that period (1.5 points).

It is concerning that for Indigenous Queenslanders, the digital inclusion gap has widened over time. In 2016 they have a low score of 42.0 (or 11.5 points below the QLD average, and 4.6 points below the national Indigenous average). Over three years their score has declined by 1.8 points, in contrast to a 1.5-point increase in QLD's average score over that period.

Queenslanders from a LOTE background are moderately digitally included, on 55.7 (or 2.2 points above the QLD average). Their score has declined marginally over time (by 0.7 points), against an increase in the QLD average over the same period (1.5 points). The LOTE community is a highly diverse group, and care should be taken in interpreting findings.

QLD: Digital inclusion by geography

April 2015 – March 2016	Australia	QLD	Brisbane	QLD Country	Brisbane Regions					Gold Coast	Sunshine Coast	Central & SW QLD	Coastal QLD	Cairns	Townsville	North West QLD
					City & North	West	South	East	Outer							
ACCESS																
Internet Access	84.4	84.3	86.6	82.1	87.1	92.6	86.0	84.1	82.5	83.8	82.4	83.4	82.9	78.5	83.0	72.8
Internet Technology	68.8	68.3	70.5	66.3	69.6	74.2	70.1	71.1	68.5	68.7	64.3	68.4	66.9	60.7	67.7	59.5
Internet Data Allowance	45.8	45.6	48.8	42.6	49.5	53.7	46.4	48.5	46.9	44.7	43.7	44.7	42.4	35.3	44.6	36.1
	66.3	66.1	68.6	63.7	68.7	73.5	67.5	67.9	66.0	65.7	63.5	65.5	64.1	58.2	65.1	56.1
AFFORDABILITY																
Relative Expenditure	47.9	45.7	47.6	43.7	47.1	51.3	45.2	51.2	42.8	44.3	40.8	44.4	43.3	48.1	45.7	41.7
Value of Expenditure	54.5	53.4	57.4	49.4	57.0	62.0	58.5	56.9	50.0	52.0	51.5	53.7	49.0	44.5	49.8	35.8
	51.2	49.6	52.5	46.6	52.0	56.7	51.9	54.0	46.4	48.1	46.1	49.1	46.1	46.3	47.7	38.7
DIGITAL ABILITY																
Attitudes	49.0	48.3	50.7	46.1	48.3	60.4	52.5	49.6	42.5	46.9	43.0	49.7	45.5	48.1	50.3	38.4
Basic Skills	51.6	50.8	54.1	47.6	56.4	65.1	52.5	49.5	40.9	51.4	48.2	48.5	46.7	47.7	44.5	39.1
Activities	37.3	36.0	39.2	33.0	39.9	52.2	37.0	37.0	27.1	34.4	36.1	32.9	32.1	33.7	30.5	28.6
	46.0	45.0	48.0	42.2	48.2	59.2	47.3	45.4	36.8	44.2	42.4	43.7	41.4	43.2	41.8	35.4
DIGITAL INCLUSION INDEX	54.5	53.5	56.4	50.8	56.3	63.1	55.6	55.8	49.7	52.7	50.7	52.7	50.5	49.2	51.5	43.4

Source: Roy Morgan Research, April 2015 - March 2016.

QLD: Digital inclusion by demography

April 2015 – March 2016	QLD	Income Quintiles					Employment			Education			Age					Disability	Indigenous	LOTE
		Q1	Q2	Q3	Q4	Q5	Full-Time	Part-Time	None	Tertiary	Secondary	Less	14-24	25-34	35-49	50-64	65+			
ACCESS																				
Internet Access	84.3	93.8	88.5	82.1	74.9	84.0	91.7	88.9	76.4	90.5	87.7	73.0	89.1	88.8	90.2	83.9	67.1	75.2	73.6	87.2
Internet Technology	68.3	75.7	71.8	68.2	61.7	65.7	74.4	71.7	61.9	73.3	69.9	60.3	70.8	73.3	72.4	67.4	56.2	62.0	55.3	70.3
Internet Data Allowance	45.6	56.4	51.7	44.2	37.8	39.8	54.9	49.7	36.5	52.4	47.7	34.9	48.1	54.2	51.7	42.6	30.1	40.3	33.1	47.0
	66.1	75.3	70.7	64.8	58.1	63.2	73.6	70.1	58.3	72.1	68.5	56.0	69.3	72.1	71.4	64.6	51.1	59.1	54.0	68.1
AFFORDABILITY																				
Relative Expenditure	45.7	55.5	43.5	42.4	41.4	46.6	47.2	44.3	45.1	58.9	57.3	43.0	45.9	42.9	46.5	44.7	48.5	45.7	39.0	39.9
Value of Expenditure	53.4	64.2	58.8	49.6	46.4	48.9	61.1	56.5	45.8	48.0	44.1	29.2	58.3	58.0	56.8	52.1	40.3	45.5	37.2	57.8
	49.6	59.8	51.2	46.0	43.9	47.7	54.1	50.4	45.5	53.4	50.7	36.1	52.1	50.5	51.7	48.4	44.4	45.6	38.1	48.9
DIGITAL ABILITY																				
Attitudes	48.3	55.5	48.2	45.1	42.9	51.0	52.2	52.1	43.5	53.0	52.4	38.4	63.3	58.2	48.3	41.0	32.4	43.2	46.1	56.0
Basic Skills	50.8	61.6	56.1	50.7	40.6	47.3	59.6	54.7	42.0	60.9	54.4	34.1	52.4	62.8	58.4	46.6	31.7	43.4	33.8	53.8
Activities	36.0	44.5	38.3	34.5	29.2	35.1	41.8	38.2	30.4	44.5	38.7	22.3	38.5	47.8	39.6	32.5	21.2	30.9	21.9	40.5
	45.0	53.9	47.5	43.4	37.6	44.4	51.2	48.3	38.6	52.8	48.5	31.6	51.4	56.3	48.8	40.1	28.4	39.1	33.9	50.1
DIGITAL INCLUSION INDEX	53.5	63.0	56.5	51.4	46.5	51.8	59.7	56.3	47.5	59.4	55.9	41.2	57.6	59.6	57.3	51.0	41.3	48.0	42.0	55.7

Source: Roy Morgan Research, April 2015- March 2016.

Australian Capital Territory

Findings

The Australian Capital Territory's ADII score for the year ending March 2016 is 59.7. This is markedly higher than Australia's national average score (54.5), making the Australian Capital Territory (ACT) the most digitally included of the eight states and territories.

The ACT ranks first nationally on all three of our key dimensions (the sub-indices): Access, Affordability, and Digital Ability. Its results have improved 1.6 points over the three years measured to date (up from 58.1 in 2014). This is against a national average increase of 1.8 points over that same period.

Dimensions of digital inclusion: Access, Affordability, Digital Ability

The ACT's strong results have been driven by relatively high Access scores, which improved over time (going from 66.2 in 2014, to 69.0 in 2015, to 69.2 now). The same is true for Digital Ability (which rose from 50.5, to 50.1, to 54.4). The Affordability measure first improved, then declined overall (from 57.6, to 59.8, to 55.7). This is a 1.9-point decline, compared with a 2.3-point decline in the Affordability measure nationally.

Looking at the components of the Access sub-index, Internet Access first improved, then declined marginally overall during the period measured (from 89.0, to 91.4, to 87.9), though it has remained high relative to other states and territories. Internet Technology improved markedly (from 64.1, to 68.6, to 72.1), and Internet Data Allowance improved (from 45.5, to 47.0, to 47.6).

The ACT's Affordability measure tracked the national pattern of increasing value, offset by increasing relative household expenditure on internet access (see page 8 in the 'National Findings' section for details of this dynamic). While Value of Expenditure in the ACT improved over time, this gain was offset by increased household spending on internet services. As a result, our Affordability measure declined slightly over time.

All three components of Digital Ability have improved steadily in the ACT over time: Attitudes (from 52.6, to 54.5, to 56.0), Basic Skills (from 56.4, to 54.4, to 60.2), and Activities (from 42.6, to 41.4, to 47.0).

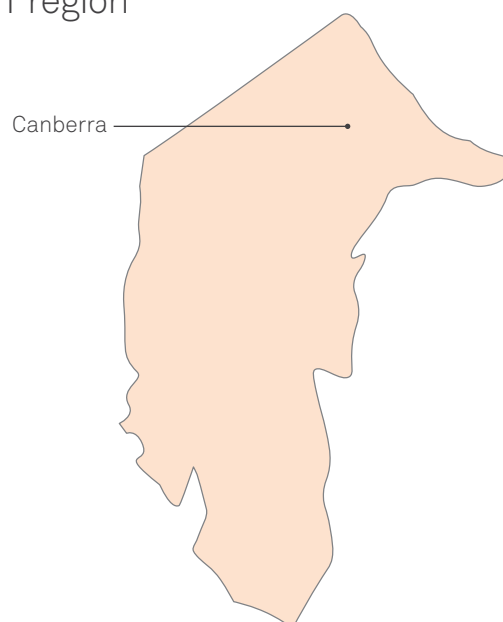
The available data for the ACT was not broken down into demographic or sub-regional categories. This means our aggregated figures may not reflect the considerable variations that exist between different communities within the broader ACT population.

ACT: Digital inclusion by geography

	Australia	ACT
April 2015 – March 2016		
ACCESS		
Internet Access	84.4	87.9
Internet Technology	68.8	72.1
Internet Data Allowance	45.8	47.6
	66.3	69.2
AFFORDABILITY		
Relative Expenditure	47.9	53.5
Value of Expenditure	54.5	57.8
	51.2	55.7
DIGITAL ABILITY		
Attitudes	49.0	56.0
Basic Skills	51.6	60.2
Activities	37.3	47.0
	46.0	54.4
DIGITAL INCLUSION INDEX	54.5	59.7

Source: Roy Morgan Research, April 2015 - March 2016.

ACT region



Source: Roy Morgan Research
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Northern Territory

Findings

The Northern Territory's ADII score for the year ending March 2016 is 54.8, which is slightly above the national average (54.5). The Northern Territory (NT) currently ranks fourth out of the eight states and territories for digital inclusion.

Over the three years measured to date, the NT's digital inclusion score has fluctuated, starting from 53.0 in 2014, rising to 55.7 in 2015, then falling slightly to 54.8 now. Over time, the NT's score has consistently remained above the Australian average, while its ranking has also fluctuated (from fourth, to second, back to fourth). Its score has increased by 1.8 points over the three years, mirroring the national average increase over that period.

Dimensions of digital inclusion: Access, Affordability, Digital Ability

Over the three years, the overall rise in NT's digital inclusion score was driven primarily by improvements in Access, which increased steadily (from 61.6, to 65.7, to 67.8). Digital Ability contributed to the upward trend (going from 42.0, up to 46.9, then down to 43.9), but this was offset by a decline in the Affordability measure over time (from 55.3, to 54.5, to 52.6).

Compared to the other states and territories, the NT ranks third for Access, second for the Affordability measure, and sixth for Digital Ability. Of particular concern is the recent decline in the NT's Digital Ability – from 46.9 in 2015, to 43.9 in 2016.

Looking at the components of Access over time, Internet Access in the NT improved, then declined marginally overall (from 84.8, to 88.2, to 84.3), but remained moderate to high in relation to other states and territories. Internet Technology improved markedly (rising from 60.2, to 65.3, to 71.3), as did Internet Data Allowance (rising from 39.8, to 43.6, to 47.8).

Broadly speaking, the Affordability measure in the NT tracked the national pattern of increasing value, offset by increasing relative household expenditure on internet access (see page 8 in the 'National Findings' section for details of this dynamic). In the NT, Value of Expenditure first declined, then improved (from 53.2, to 50.9, to 54.9). The NT saw a 2.7-point decrease in the Affordability measure over three years, against a 2.3-point decrease nationally over that period.

Within the Digital Ability sub-index, the Attitudes component improved markedly over time (from 39.5, to 47.7, to 47.5). However, both Basic Skills (which went from 50.2, to 52.1, to 48.1) and Activities (from 36.5, to 40.8, to 36.1) first improved, then declined overall.

The available data for the NT was not broken down into demographic or sub-regional categories. This means our aggregated figures may not reflect the considerable variations that exist between different communities within the broader NT population. In particular, data collection did not extend to remote Aboriginal communities, where high levels of geographic isolation and socioeconomic disadvantage pose real challenges for digital inclusion. More detailed research is required to gain a clearer understanding of digital inclusion in these remote communities (see Case Study 3, page 22, for a current research project in this area).

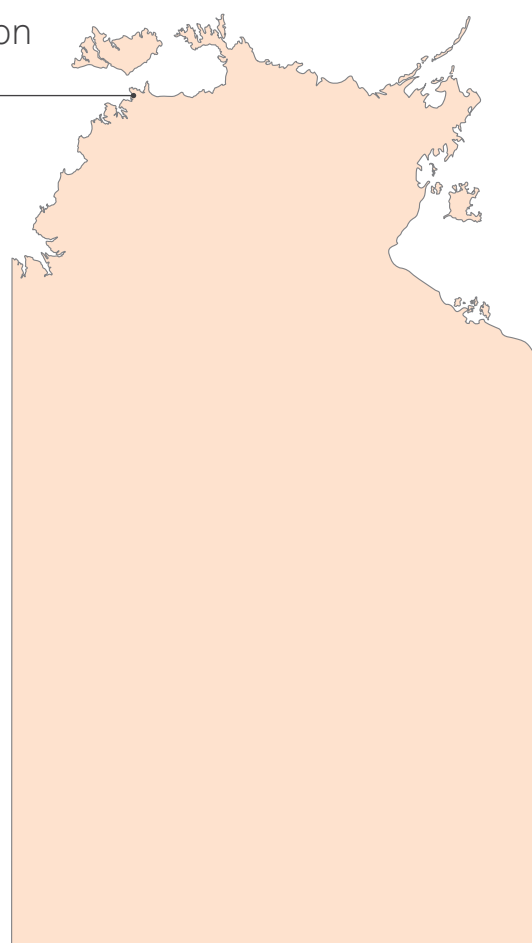
NT: Digital inclusion by geography

	Australia	NT
April 2015 – March 2016		
ACCESS		
Internet Access	84.4	84.3
Internet Technology	68.8	71.3
Internet Data Allowance	45.8	47.8
	66.3	67.8
AFFORDABILITY		
Relative Expenditure	47.9	50.3
Value of Expenditure	54.5	54.9
	51.2	52.6
DIGITAL ABILITY		
Attitudes	49.0	47.5
Basic Skills	51.6	48.1
Activities	37.3	36.1
	46.0	43.9
DIGITAL INCLUSION INDEX	54.5	54.8

Source: Roy Morgan Research, April 2015 - March 2016.

NT region

Darwin



Source: Roy Morgan Research
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Case Study 3

Connected and Included: Stories of Digital Inclusion

NT Cyber Safety Project:

Helping remote Aboriginal communities connect and stay safe online



'[We need] more information – short, simple information – to give to other Indigenous people, like parents and grandparents, for them to be aware about costs, danger and conflicts.'

**Adult participant,
Cyber Safety Project**

Who?

This two-year research project is investigating remote Aboriginal people's awareness and experiences of cyber safety. The Northern Territory (NT) Cyber Safety Project aims to build capacity and digital skills in three remote Aboriginal communities and towns in the Northern Territory. Participants include adults and high school-aged students.

Conducted by Swinburne University's Institute for Social Research, and commissioned by Telstra, the project commenced in September 2015.

Why?

Aboriginal communities across the Northern Territory are quickly adopting new digital technologies. But despite this enthusiastic uptake, many people in these remote areas – especially mid-aged and older community members – have low levels of digital literacy and are mobile-only internet users.

In addition, practices such as the sharing of devices are producing particular issues that are not encountered by other Australian groups.

How?

This research project seeks to understand the effectiveness of different cyber safety tools and approaches within three regional centres in the Northern Territory. The project makes use of resources developed specifically for NT Aboriginal people.

The first phase of the project, a series of cyber safety information-sharing workshops and one-on-one interviews, took place in 2016 in Tennant Creek, a town of 3000 people located 600 kilometres north of Alice Springs, and in Elliot and Canteen Creek, two smaller remote communities in the Barkly region.

The second phase of the project will investigate whether improving digital literacy is sufficient for tackling cyber-safety issues. It will also explore strategies such as the use of community mediation to resolve local conflicts, and trial a mobile-optimised website that offers culturally appropriate cyber safety information.

Outcomes

Within central Australian remote Aboriginal communities, internet access is predominantly mobile and social media platforms such as Divas Chat and Facebook are widely used. Mobile devices are often shared between friends and family members.

To date, issues identified in this study include cyber bullying and inappropriate content or comments, particularly on social media platforms. Issues with online privacy and financial security were also noted, including vulnerability to online scams and hoaxes. Another issue was transferring credit from other people's prepaid accounts, especially on phones without passwords, or when family members had shared passwords.

At this early stage, one key study finding is that remote Aboriginal communities need straightforward, accessible information about the use of digital devices and social media to enable them to effectively manage any cyber safety issues. This ongoing project will continue to investigate the best way to build digital capability within these communities.

Find out more:

exchange.telstra.com.au/2016/05/03/connect-respect-cyber-safety-remote-indigenous-australia

Case Study 4

Connected and Included: Stories of Digital Inclusion

Tech Savvy Seniors:

Boosting digital awareness for older Australians

'I've never had a computer, I've had no knowledge of computers, and with grandchildren and great grandchildren I just wanted to learn.'

**Joan (74), participant,
Tech Savvy Seniors**



Who?

Tech Savvy Seniors was set up to help seniors across Australia build the skills and confidence they need to participate in the online world. Established in 2013, the program now operates through partnerships between Telstra and state governments in New South Wales, Victoria and Queensland.

Designed for people aged 60 and over, the program aims to increase digital inclusion, reduce social isolation, improve access to online government information and services, and improve awareness of how to stay safe online.

Why?

Being confident and literate with technology is a vital skill in the digital age. Digital awareness helps people to be active and independent members of their communities. Research suggests that seniors across Australia have increased their internet use at only about half the speed of younger people, own fewer mobile devices, and are less active online ([ACMA 2014](#)). The slower take-up of ICT by seniors, combined with their limited online presence, may limit this group's ability to play an active part in our increasingly digital society.

How?

Tech Savvy Seniors provides face-to-face tutorials on how to use computers, tablets and smartphones through community colleges and libraries across urban and regional New South Wales, Victoria and Queensland. The training is free or low-cost. Since the program's inception around 54,000 seniors have received training, which is delivered in Arabic, Cantonese, Dari, Greek, Hindi, Italian, Mandarin, Tagalog and Vietnamese, as well as English.

Tech Savvy Seniors also provides access to a range of online 'self-teach' videos covering such topics as social networking, internet security, email, online shopping, buying a computer, setting up wireless networks, and using e-book readers. Free training guides have been created so that other training providers can help spread the word and pass on new digital skills to senior Australians.

Outcomes

When the program was evaluated, participants said they had gained greater knowledge about how to use digital devices, access online information, and navigate search engines and websites.

In NSW and Victoria, people reported that Tech Savvy Seniors had helped boost their confidence in using computers, tablets and smartphones. This was particularly true for those who attended four or more tutorials. In turn, this greater confidence helped them to become more active in developing their own digital skills. The Social Return on Investment (SROI) for these programs was highly positive, returning benefits of between \$6 and \$13 for every \$1 invested.

Another reported benefit was greater social connection with family and friends, whether by email, social media or Skype. This was especially true for seniors whose children lived interstate or overseas. Taking part in the program also fostered broader social connections. Some people used their new digital skills to participate more fully in a range of civic and community groups as volunteers, administrators or leaders.

Find out more:

www.telstra.com.au/tech-savvy-seniors

Tasmania

Findings

For the year ending March 2016, Tasmania's ADII score was 48.2, the lowest for any state or territory in Australia. Australia as a whole scored 54.5, the ACT was the top-scoring state or territory on 59.7, and South Australia held the second-lowest score, on 51.6.

Over the three years measured to date, Tasmania consistently recorded the lowest ADII score nationally. In 2016, its score also fell below the average for Country Australia (on 50.2).

Of particular concern is that Tasmania is the only state or territory with declining results. Over three years, its digital inclusion has decreased slightly: from 48.8 in 2014, up to 50 in 2015, and down to 48.2 currently.

Tasmania's scores were the lowest nationally across all three sub-indices – Access (61.4, against Australia's national average of 66.3), the Affordability measure (44.1, against 51.2 nationally), and Digital Ability (39, against 46 nationally). Digital Ability and the Affordability measure were the biggest contributors to Tasmania's 'digital divide' (both approximately 7 points behind the national average), followed by Access (4.9 points behind).

In 2014, Tasmania's ADII score was 4.5 points behind Victoria, the most-included state; in 2016, it is 7.7 points behind. The apparently widening Digital Ability and Affordability gaps between these two states are worth noting. In 2015 Victoria's Digital Ability score was 45.8 and Tasmania's was 40 (a 5.8 point difference), while in 2016 Victoria's is 47.6 and Tasmania's is 39 (an 8.6 point difference). The Affordability gap between Victoria and Tasmania recently widened significantly, going from 1 point in 2015, to 7.9 points in 2016.

Geography

Within Tasmania, Hobart is the most digitally included sub-region, currently on 49.9. Country Tasmania averaged a relatively low 46.9,

while Southern Tasmania is the least digitally included part of the state, on 45.7 (although this is a marked improvement on its 2015 score of 41.9). This places Southern Tasmania amongst the least digitally included regions in Australia, along with NSW's Hunter region (41.2), North West Queensland (43.4), Northern Victoria (43.8), Eyre in South Australia (45.6), and much of regional WA ('Other WA', 47.4).

Despite its relatively strong statewide performance, Hobart's digital inclusion has gradually declined over three years, from 52.2, to 51.9, to 49.9. In the first two years of measurement, Hobart almost mirrored Australia's overall score, but the city now falls noticeably behind the national average of 54.5.

Demographics

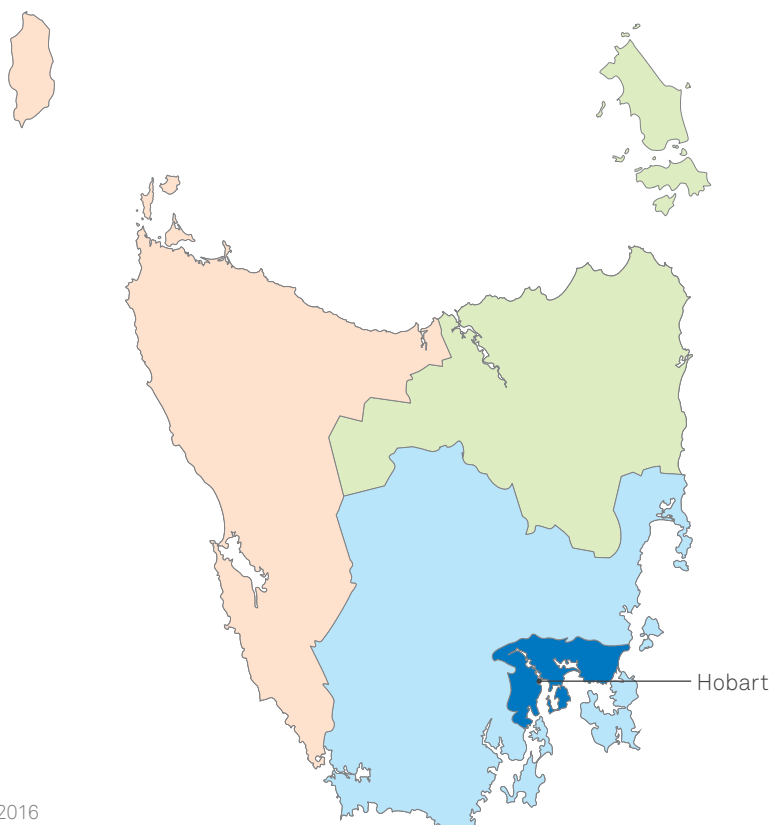
Echoing the broad pattern of the national figures, Tasmanians with lower income, education, and employment levels tend to be less digitally included. However, an exception is seen in the lowest income bracket (Q5), which includes young people on low incomes who live at home with their parents, and so enjoy greater connectivity.

Tasmanians in the top income bracket (Q1) scored 61.4 (against a statewide average of 48.2, and a national average of 63.6 for that cohort). Tasmanians in the lowest income bracket (Q5) scored 49.9 (against 54.7 nationally for that cohort), while those in the second-lowest bracket (Q4) scored just 41.6 (against 47.6 nationally for that cohort). Access was particularly high for those in the highest income bracket (77), and Digital Ability was particularly low for those in the Q4 income bracket (30.5).

Tertiary-educated Tasmanians scored 54.1 (against a national figure of 60 for this cohort), while those with less than secondary education scored 41.3 (against 44.6 nationally for this cohort). Tasmanians in full-time work scored 53.5 (against 60.3 nationally

TAS regions

- Hobart
- South TAS
- Burnie & West TAS
- Launceston & NE TAS



Source: Roy Morgan Research
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for this cohort), while Tasmanians not in paid employment scored 43.8 (against 48.1 nationally for this cohort).

Tasmanians of all ages recorded the lowest national scores for their age-groups. People aged 14–25 are the state’s most digitally included age-group, on 54.8, while people aged 35–49 (on 52.9) scored slightly higher than those aged 25–34 (on 52). Senior Tasmanians (aged 65+) scored just 39.7, the lowest of any demographic group statewide.

The Tasmanian data points to several groups of people whose digital inclusion was consistently low over the three years. In ascending order, they are: seniors (aged 65+), people with less than secondary education, people with disability, and people in the Q4 income bracket. For all these groups, the greatest gap occurs in the Digital Ability sub-index.

Looking at the figures for these more digitally excluded groups, seniors scored 39.7 (against 41.6 nationally for seniors), those with

less than secondary education scored 41.3 (against 44.6 nationally for that cohort), and Tasmanians in the Q4 income bracket scored 41.6 (against 47.6 nationally for that cohort). Tasmanians with disability scored 41.5 (against 44.4 nationally for that cohort).

Indigenous Tasmanians fared comparatively better on 46.9, just below the state as a whole, and above the national Indigenous score. However, it should be noted that the ADII score for Indigenous people in Tasmania is based on a small sample size (<50), so our results may not be an accurate reflection of this group’s digital inclusion.

Tasmanians from a LOTE background scored 45.2, below the state’s average score (48.2), and markedly below the strong national figure of 57.9 for the LOTE cohort. Generally speaking, the LOTE community is a highly diverse group, and care should be taken in interpreting findings. In the case of Tasmania, our sample size for people from a LOTE background was small, so our results may not accurately reflect digital inclusion for this group.

TAS: Digital inclusion by geography

April 2015 – March 2016	Australia	TAS	Hobart	TAS Country	South TAS	Burnie & West TAS	Launceston & NE TAS
ACCESS							
Internet Access	84.4	80.5	82.3	79.2	75.7	79.8	79.7
Internet Technology	68.8	65.0	65.8	64.3	61.5	65.1	64.5
Internet Data Allowance	45.8	38.6	39.1	38.4	35.2	39.8	38.2
	66.3	61.4	62.4	60.6	57.5	61.6	60.8
AFFORDABILITY							
Relative Expenditure	47.9	43.2	42.8	43.5	49.8	42.1	42.8
Value of Expenditure	54.5	45.0	48.5	42.6	33.8	46.3	42.0
	51.2	44.1	45.6	43.0	41.8	44.2	42.4
DIGITAL ABILITY							
Attitudes	49.0	43.3	47.0	40.5	37.7	41.6	40.5
Basic Skills	51.6	42.7	44.4	41.4	44.2	39.0	42.6
Activities	37.3	31.1	33.3	29.4	31.6	29.6	28.7
	46.0	39.0	41.5	37.1	37.8	36.7	37.2
DIGITAL INCLUSION INDEX	54.5	48.2	49.9	46.9	45.7	47.5	46.8

Source: Roy Morgan Research, April 2015 - March 2016.

TAS: Digital inclusion by demography

April 2015 – March 2016	TAS	Income Quintiles					Employment			Education			Age					Disability	Indigenous*	LOTE*
		Q1	Q2	Q3	Q4	Q5	Full-Time	Part-Time	None	Tertiary	Secondary	Less	14-24	25-34	35-49	50-64	65+			
ACCESS																				
Internet Access	80.5	95.1	85.3	75.8	71.5	82.7	90.4	87.1	72.0	90.4	82.3	69.5	90.8	90.0	87.3	77.4	64.2	70.9	79.1	81.6
Internet Technology	65.0	79.8	67.6	61.0	57.5	65.9	73.9	66.6	59.0	72.2	66.4	56.6	71.2	70.5	70.7	62.5	53.9	60.9	67.6	61.8
Internet Data Allowance	38.6	56.1	40.3	32.7	35.3	37.1	47.2	38.6	33.6	45.1	42.0	29.3	44.4	48.9	44.8	33.8	27.4	32.0	36.8	33.5
	61.4	77.0	64.4	56.5	54.8	61.9	70.5	64.1	54.9	69.2	63.6	51.8	68.8	69.8	67.6	57.9	48.5	54.6	61.2	59.0
AFFORDABILITY																				
Relative Expenditure	43.2	52.7	34.5	41.7	39.5	50.1	36.8	42.8	46.6	41.3	40.4	47.3	49.1	24.8	38.7	45.4	49.7	32.1	54.3	38.0
Value of Expenditure	45.0	60.8	46.5	40.7	39.3	43.9	53.5	43.8	41.2	52.4	43.3	39.4	49.6	40.9	58.0	41.0	37.4	40.7	33.6	32.7
	44.1	56.7	40.5	41.2	39.4	47.0	45.2	43.3	43.9	46.9	41.8	43.4	49.3	32.8	48.3	43.2	43.5	36.4	44.0	35.4
DIGITAL ABILITY																				
Attitudes	43.3	52.5	44.8	42.7	34.7	48.4	48.8	48.3	37.7	48.9	47.4	34.1	57.6	59.9	43.5	35.5	30.7	39.4	42.4	46.7
Basic Skills	42.7	55.9	47.9	43.4	31.6	43.2	49.7	52.0	34.3	51.9	46.5	30.3	44.5	57.6	49.7	39.1	29.1	36.2	38.8	42.2
Activities	31.1	42.7	31.5	30.9	25.2	30.6	35.6	36.4	26.0	38.0	33.9	21.7	36.6	42.1	35.4	26.0	21.4	25.0	25.2	34.6
	39.0	50.4	41.4	39.0	30.5	40.7	44.7	45.6	32.7	46.3	42.6	28.7	46.2	53.2	42.8	33.5	27.1	33.5	35.5	41.2
DIGITAL INCLUSION INDEX	48.2	61.4	48.8	45.5	41.6	49.9	53.5	51.0	43.8	54.1	49.3	41.3	54.8	52.0	52.9	44.9	39.7	41.5	46.9	45.2

Source: Roy Morgan Research, April 2015 - March 2016. *Small sample size.

South Australia

Findings

For the year ending March 2016, South Australia's ADII score is 51.6, the second lowest for any state or territory nationwide. Australia as a whole scored 54.5, the ACT is the most digitally included state or territory, on 59.7, and Tasmania is the least digitally included, on 48.2.

Over the three years measured to date, digital inclusion in South Australia (SA) increased, although SA's position in relation to other states and territories remained consistent. SA scored 50 in 2014, 50.4 in 2015, and 51.6 in 2016. This represents a statewide rise of 1.6 points over three years, against a national rise of 1.8 points for that same period. Over time, SA's score has consistently tracked slightly above the average figure for Country Australia as a whole (now on 50.2).

Looking at our three dimensions (sub-indices) over the three years, South Australia's Access score has improved (from 59.5 in 2014, to 64 in 2016). Its Affordability score has dropped (from 50.9 in 2014, to 47.5 now), and its Digital Ability score has improved (from 39.6 in 2014, to 43.2 now). For SA as a whole, the Affordability measure (3.7 points below the national average) and Digital Ability score (2.8 points below the national average) are currently the biggest contributors to the 'digital divide'.

Geography

Within South Australia, in 2016 the city of Adelaide continues to be the most digitally included part of the state in, scoring 52.8. Adelaide's score has increased only slightly over time, from 51.7 in 2014, to 52.6 the following year, then 52.8 currently.

South Australia's least digitally included area is Eyre (on 45.6), a large region in the north west of SA, which includes the regional towns of Port Pirie, Whyalla and Port Augusta. While Eyre's score has improved from 43.5 in 2015, it remains amongst the least digitally included sub-regions in Australia, along with NSW's Hunter region (41.2), North West Queensland (43.4), Northern Victoria (43.8), Southern Tasmania (45.7), and much of regional WA ('Other WA', 47.4).

Demographics

Echoing patterns in the national figures, digital inclusion in SA tends to increase as income, education, and employment levels rise. Again, we see an exception in the lowest income bracket (Q5), which includes teenagers and young adults who live with their parents and do not work full-time, and so enjoy greater connectivity.

In 2016 those in the highest income bracket (Q1) had the highest score, 59.6 (against a statewide average of 51.6, and a national average of 63.6 for that bracket), while those in the second-lowest income bracket (Q4) had the lowest, 46.9 (against a national figure of 47.6 for that demographic group).

In 2016 tertiary-educated SA residents scored 56.8 (against a national figure of 60 for that cohort), while those with less than secondary education scored 43.2 (against 44.6 for this group nationally). People aged 14–24 years are the most digitally included age-group statewide, on 60.

Again reflecting national patterns, the data highlights several groups in SA with low digital inclusion. In ascending order, these groups are: people with a disability, seniors, people with less than secondary education, and Indigenous people. These groups' scores are low both within the state, and compared with national averages for their specific demographic cohorts.

In 2016, people with a disability in SA had a score of 38.1 (against a national average of 44.4 for that cohort), seniors aged 65+ had a score of 40.4 (against 41.6 for this cohort nationally), people with less than secondary education had a score of 43.2 (against 44.6 for this cohort nationally) while Indigenous South Australians had a score of 44.2 (against 46.6 for this cohort nationally).

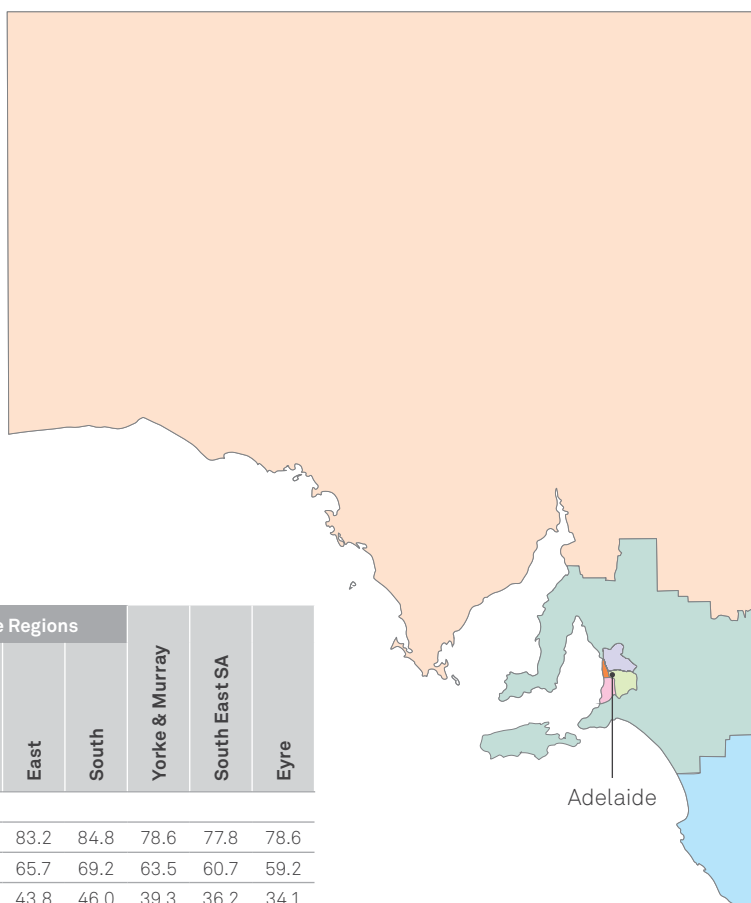
For each of these more excluded groups, the greatest gaps consistently occur in the Digital Ability dimension. On Digital Ability, SA's least included groups are seniors aged 65+ (scoring 26.8), Indigenous people (29), people with a disability (29.1), and people with less than secondary education (30.4). It should be noted that the ADII score for Indigenous people in SA is based on a small sample size (<20), so our results may not be an accurate reflection of this group's digital inclusion.

It is concerning to note that in 2016, South Australians with a disability scored the lowest of any demographic group statewide, and the lowest of any disability cohort in Australia. Over three years, digital inclusion has dropped slightly for this group – from 39.3 in 2014, up to 42 in 2015, and down to 38.1 in 2016. This contrasts with a 1.8-point increase in Australia's overall ADII score in that same period.

South Australians from a LOTE background scored 52.7, slightly above the state's average score, but well below the strong national figure of 57.9 for this cohort. The LOTE community is a highly diverse group, and care should be taken in interpreting findings.

SA regions

- North Adelaide
- West Adelaide
- East Adelaide
- South Adelaide
- Yorke & Murray
- South East SA
- Eyre



SA: Digital inclusion by geography

April 2015 – March 2016	Australia	SA	Adelaide	SA Country	Adelaide Regions				Yorke & Murray	South East SA	Eyre
					North	West	East	South			
ACCESS											
Internet Access	84.4	82.3	83.4	78.5	83.5	81.5	83.2	84.8	78.6	77.8	78.6
Internet Technology	68.8	66.1	67.4	61.7	68.6	64.5	65.7	69.2	63.5	60.7	59.2
Internet Data Allowance	45.8	43.6	45.4	37.2	48.1	41.7	43.8	46.0	39.3	36.2	34.1
	66.3	64.0	65.4	59.1	66.7	62.6	64.3	66.7	60.5	58.3	57.3
AFFORDABILITY											
Relative Expenditure	47.9	45.6	46.2	43.4	44.5	48.0	51.6	42.3	43.4	43.0	43.8
Value of Expenditure	54.5	49.5	51.4	42.9	54.1	43.2	53.1	52.6	43.6	44.4	40.6
	51.2	47.5	48.8	43.2	49.3	45.6	52.3	47.5	43.5	43.7	42.2
DIGITAL ABILITY											
Attitudes	49.0	46.8	47.6	44.3	49.1	45.4	49.0	46.0	46.9	41.5	41.2
Basic Skills	51.6	48.8	49.8	45.2	50.2	51.0	46.8	51.1	47.0	45.2	42.3
Activities	37.3	33.9	35.1	29.6	33.6	37.3	34.0	36.4	30.6	28.4	28.6
	46.0	43.2	44.2	39.7	44.3	44.6	43.3	44.5	41.5	38.3	37.4
DIGITAL INCLUSION INDEX	54.5	51.6	52.8	47.3	53.5	50.9	53.3	52.9	48.5	46.8	45.6

Source: Roy Morgan Research
© Commonwealth of Australia, 2016

Source: Roy Morgan Research, April 2015 - March 2016.

SA: Digital inclusion by demography

April 2015 – March 2016	SA	Income Quintiles					Employment			Education			Age					Disability	Indigenous*	LOTE
		Q1	Q2	Q3	Q4	Q5	Full-Time	Part-Time	None	Tertiary	Secondary	Less	14-24	25-34	35-49	50-64	65+			
ACCESS																				
Internet Access	82.3	91.0	86.6	79.7	74.4	83.1	89.5	89.6	73.8	89.0	86.4	71.9	91.3	88.5	88.0	82.0	64.8	60.3	66.2	83.5
Internet Technology	66.1	71.0	68.8	65.9	60.7	66.3	70.1	71.3	60.6	70.3	69.9	58.6	73.0	69.2	68.3	66.2	55.7	50.5	50.1	66.6
Internet Data Allowance	43.6	49.9	46.7	42.5	37.7	43.4	48.2	48.1	37.9	48.1	48.9	34.4	51.2	49.5	47.8	43.4	28.5	26.6	30.7	42.4
	64.0	70.7	67.4	62.7	57.6	64.3	69.3	69.7	57.4	69.1	68.4	55.0	71.8	69.1	68.0	63.8	49.6	45.8	49.0	64.2
AFFORDABILITY																				
Relative Expenditure	45.6	57.7	43.8	36.8	44.1	49.1	46.3	43.7	45.9	48.3	40.2	47.2	47.0	34.2	45.3	47.7	50.5	48.7	65.8	42.7
Value of Expenditure	49.5	54.0	48.0	48.1	48.1	51.2	52.2	55.7	45.1	52.6	55.6	41.5	60.7	47.2	53.5	49.9	38.8	30.3	43.3	52.9
	47.5	55.9	45.9	42.4	46.1	50.1	49.3	49.7	45.5	50.4	47.9	44.3	53.8	40.7	49.4	48.8	44.7	39.5	54.5	47.8
DIGITAL ABILITY																				
Attitudes	46.8	52.6	48.7	38.9	41.6	54.0	50.3	49.7	42.9	50.4	52.6	38.2	67.4	54.4	45.9	40.8	31.7	37.4	30.6	51.8
Basic Skills	48.8	62.6	52.4	46.0	41.1	46.0	56.4	57.3	39.1	59.5	55.2	32.2	54.6	58.5	60.1	44.6	28.9	29.8	33.4	47.7
Activities	33.9	41.6	34.9	32.2	28.8	34.7	36.4	41.4	28.3	42.6	38.5	20.9	41.4	42.2	40.1	29.2	19.7	20.1	22.9	38.5
	43.2	52.3	45.3	39.0	37.1	44.9	47.7	49.4	36.8	50.8	48.8	30.4	54.4	51.7	48.7	38.2	26.8	29.1	29.0	46.0
DIGITAL INCLUSION INDEX	51.6	59.6	52.9	48.1	46.9	53.1	55.4	56.3	46.6	56.8	55.0	43.2	60.0	53.8	55.4	50.3	40.4	38.1	44.2	52.7

Source: Roy Morgan Research, April 2015 - March 2016. *Small sample size.

Western Australia

Findings

For the year ending March 2016, Western Australia's ADII score is 54.2. The state now sits slightly below the national average (54.5), ranking fifth out of the eight states and territories.

Over the three years measured to date, WA's digital inclusion went from 52.9 in 2014, to 54.7 in 2015, to 54.2 now. Over time, on our three key dimensions, we saw improvements in Access (rising from 61.8, to 64.2, to 65.4) and Digital Ability (from 41.8, to 45.4, to 45.3), while the Affordability index number declined (from 55.1, to 54.6, to 51.8).

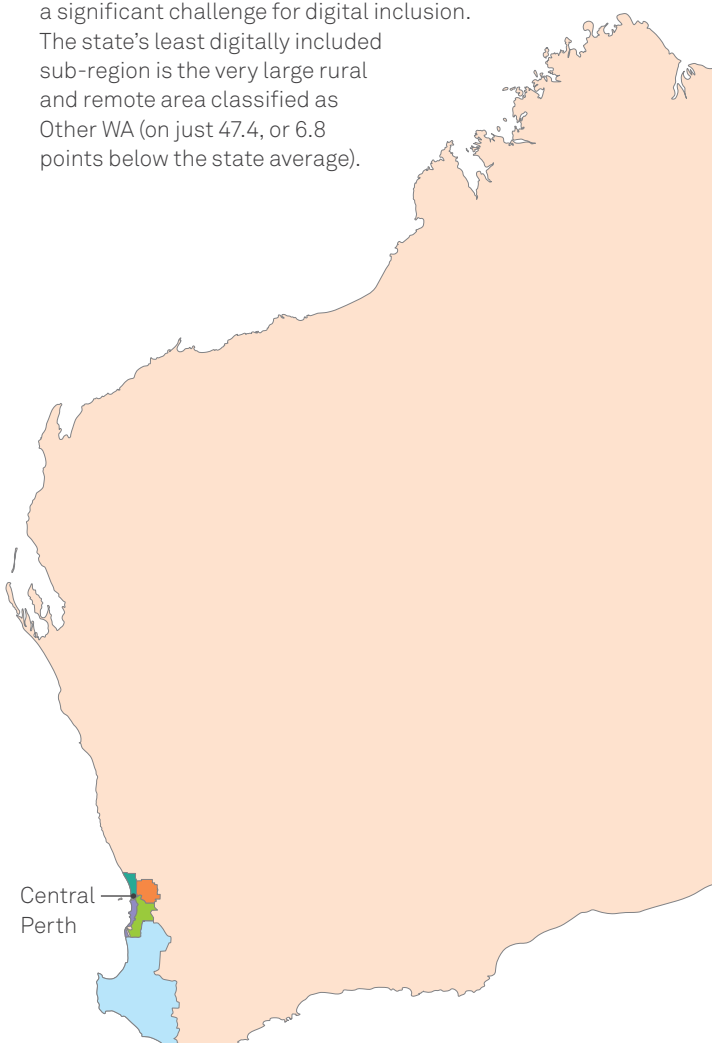
This decline in WA's Affordability measure tracked the national pattern of increasing value, offset by increasing relative household expenditure on internet access (see page 8 in the 'National Findings' section for details of this dynamic). The Affordability score in WA decreased 3.3 points over three years, against a national average decrease of 2.3 points over that period.

Geography

In 2016 Perth's digital inclusion score is 55.4, slightly above both the state and national averages. WA's most digitally included sub-region is Perth Central (on 59.8, or 5.6 points above the statewide average).

The WA figures show that distance can pose a significant challenge for digital inclusion.

The state's least digitally included sub-region is the very large rural and remote area classified as Other WA (on just 47.4, or 6.8 points below the state average).



Source: Roy Morgan Research
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This area covers most of regional WA, besides a relatively small area (South West WA) encompassing Bunbury and Busselton. This places Other WA amongst the least digitally included regions in Australia, along with NSW's Hunter region (41.2), North West Queensland (43.4), Northern Victoria (43.8), Eyre in South Australia (45.6), and Southern Tasmania (45.7).

However, over three years, the 'Capital-Country digital divide' in WA has decreased slightly. The Access gap initially widened before narrowing overall (from 5.2, to 6.7, to 3.9), the Affordability gap narrowed just slightly (from 8.4, to 8.7, to 7.8), and the Digital Ability gap narrowed overall (7.3, to 4.8, to 6.1).

Demographics

In line with national trends, Western Australians with lower income, education, and employment levels tend to be less digitally included. Again, an exception is seen in the lowest income bracket (Q5), which includes young people who live with their parents and don't work full-time, and so enjoy greater connectivity.

People in the highest income bracket scored 59.8 (5.6 points above the statewide average), while those in the second-lowest (Q4) scored 46.8 (7.4 points below the statewide average).

In 2016 tertiary-educated people in WA scored 58.5 (4.3 above the statewide average), while those with a secondary education scored 54.8 (slightly above the statewide average), and people with less than secondary education scored 47.7 (6.5 points below the statewide average).

In 2016 people not in paid employment in WA scored 49.6 (4.6 points below the state average), while full-time workers scored 57.5 (3.3 above the state average).

Echoing national trends, the WA data points to several groups of people who are the most digitally excluded. In ascending order, they are: seniors (on 40.9), people in the Q4 income bracket (46.8), people with less than secondary education (47.7), and people with disability (48.8).

WA's two youngest age-groups are the most digitally included, with 14-24 year olds on 58.4, and 25-34 year olds on 59.7 (4.2 and 5.5 points above the WA average, respectively). However, inclusion

WA regions

- Central Perth
- East Perth
- North Perth
- South West Perth
- South East Perth
- South West WA
- Other WA

declines steadily for 35–49 year olds (on 55.7, or 1.5 points above the WA average) and 50–64 year olds (on 53.5, or 0.7 points below it). Inclusion drops steeply for those aged 65+ (on just 40.9, 13.3 points below the WA average).

People with disability in WA have a relatively low level of digital inclusion (48.8, or 5.4 points below the WA average). However, their score has improved markedly (by 9.6 points) over three years, far outpacing the nationwide average increase over that period (1.3 points), and is now 4.4 points above the national disability figure (44.4).

Similarly, Indigenous people in WA have relatively low digital inclusion (49.9, which is 4.3 points below the WA average). However, their score has improved steadily (by 4.5 points) over three years, outpacing the average statewide increase over that period (1.3 points), and is now 3.3 points higher than the national Indigenous average.

It should be noted that the ADII score for Indigenous people in WA is based on a small sample size (<20), so our results may not be an accurate reflection of this group's digital inclusion. We also note that Roy Morgan's data collection did not extend to remote Aboriginal communities, where geographic isolation and socioeconomic disadvantage pose real challenges for digital inclusion. More detailed research is required to gain a clearer understanding of digital inclusion in these communities (see Case Study 3, page 22, for a research project in this area).

People from a LOTE background in WA have relatively strong digital inclusion (56.2, or 2.0 points above the statewide average). However, this has declined very slightly over three years (by 0.5 points), against an increase in the statewide average over that period (1.3 points). The LOTE community is a highly diverse group, and care should be taken in interpreting findings.

WA: Digital inclusion by geography

April 2015 – March 2016	Australia	WA	Perth	WA Country	Perth Regions					South West WA	Other WA
					Central	East	North	South West	South East		
ACCESS											
Internet Access	84.4	83.5	84.0	81.9	85.4	85.2	82.5	85.1	83.2	85.5	80.2
Internet Technology	68.8	67.8	68.5	65.2	70.7	65.0	67.7	69.1	70.4	70.8	62.5
Internet Data Allowance	45.8	44.8	46.1	39.8	48.6	44.5	43.2	44.5	51.6	44.2	37.7
	66.3	65.4	66.2	62.3	68.3	64.9	64.5	66.2	68.4	66.8	60.1
AFFORDABILITY											
Relative Expenditure	47.9	50.5	51.3	47.7	58.7	50.1	53.1	49.8	48.8	47.6	47.7
Value of Expenditure	54.5	53.0	55.6	43.5	61.7	55.0	53.8	55.1	56.6	49.7	40.8
	51.2	51.8	53.4	45.6	60.2	52.5	53.5	52.4	52.7	48.6	44.2
DIGITAL ABILITY											
Attitudes	49.0	46.5	47.9	40.9	53.6	50.4	47.3	45.5	47.7	47.8	37.7
Basic Skills	51.6	51.8	52.9	47.5	57.7	53.6	50.4	51.9	54.8	51.3	45.7
Activities	37.3	37.7	39.0	33.1	41.8	39.5	37.7	36.8	41.6	38.9	30.4
	46.0	45.3	46.6	40.5	51.0	47.8	45.1	44.8	48.0	46.0	37.9
DIGITAL INCLUSION INDEX	54.5	54.2	55.4	49.5	59.8	55.1	54.4	54.5	56.4	53.8	47.4

Source: Roy Morgan Research, April 2015 - March 2016.

WA: Digital inclusion by demography

April 2015 – March 2016	WA	Income Quintiles					Employment			Education			Age					Disability	Indigenous*	LOTE
		Q1	Q2	Q3	Q4	Q5	Full-Time	Part-Time	None	Tertiary	Secondary	Less	14-24	25-34	35-49	50-64	65+			
ACCESS																				
Internet Access	83.5	90.0	84.7	82.3	73.1	85.6	88.1	86.7	76.8	88.2	85.3	75.5	88.8	90.2	86.3	83.3	65.1	78.3	76.4	84.4
Internet Technology	67.8	72.7	69.2	65.9	61.6	67.8	71.5	69.2	63.2	70.4	71.0	61.4	70.2	72.6	69.1	68.5	56.5	64.2	54.6	69.4
Internet Data Allowance	44.8	50.6	47.5	43.4	37.8	42.8	49.9	47.4	37.9	47.7	47.1	38.7	48.5	54.8	44.0	45.1	29.2	39.4	37.5	48.6
	65.4	71.1	67.2	63.9	57.5	65.4	69.8	67.8	59.3	68.8	67.8	58.5	69.2	72.5	66.5	65.6	50.3	60.6	56.2	67.5
AFFORDABILITY																				
Relative Expenditure	50.5	57.5	43.5	44.1	45.9	57.4	51.1	49.6	50.6	51.3	47.3	52.4	54.1	45.8	51.9	51.4	49.0	38.1	61.0	49.7
Value of Expenditure	53.0	56.0	54.1	48.2	49.3	55.6	54.0	57.3	49.0	56.5	54.7	46.9	56.4	61.7	51.7	52.0	41.3	54.2	61.9	55.2
	51.8	56.8	48.8	46.1	47.6	56.5	52.5	53.5	49.8	53.9	51.0	49.7	55.2	53.7	51.8	51.7	45.2	46.2	61.4	52.5
DIGITAL ABILITY																				
Attitudes	46.5	51.7	45.5	44.2	38.2	50.5	49.6	47.6	42.5	51.1	46.7	40.0	59.8	54.7	45.9	40.4	30.9	46.5	43.2	53.3
Basic Skills	51.8	60.3	53.0	54.0	39.0	51.0	58.9	52.6	44.0	61.5	52.2	38.2	51.5	58.7	60.2	51.7	30.3	43.0	32.2	50.2
Activities	37.7	42.9	38.3	38.4	28.9	39.1	41.8	40.0	32.3	46.2	37.7	26.4	41.1	45.3	40.6	37.3	21.1	29.6	20.6	42.8
	45.3	51.6	45.6	45.5	35.4	46.9	50.1	46.7	39.6	53.0	45.5	34.9	50.8	52.9	48.9	43.1	27.4	39.7	32.0	48.7
DIGITAL INCLUSION INDEX	54.2	59.8	53.9	51.8	46.8	56.2	57.5	56.0	49.6	58.5	54.8	47.7	58.4	59.7	55.7	53.5	40.9	48.8	49.9	56.2

Source: Roy Morgan Research, April 2015 - March 2016. *Small sample size.

Case Study 5

Connected and Included: Stories of Digital Inclusion

The Royal Institute for Deaf and Blind Children (RIDBC) Teleschool: Supporting young people with hearing and vision loss

'I have learnt a lot from the Teleschool sessions, and from my son's teacher, about how best to assist my son's learning and support in vision impairment.'

**Parent,
RIDBC Teleschool**



Outcomes

Digital technologies allow the RIDBC to extend the benefits of its work to people who would not otherwise have access. Every year the Teleschool sends families an anonymous survey to measure the impact of its work. Parents say the program makes them more confident in their knowledge and understanding of sensory impairment, and improves family-child communication.

Families recognise the benefits of accessing specialist services, and say the school's ongoing support makes them feel less isolated. In particular, they value the immediate 'real-time' feedback from specialists, a feature made possible by videoconferencing technology.

In 2015, the RIDBC Teleschool provided services to 226 children with sensory impairment in regional and remote Australia. The RIDBC also held seven residential weeks for children with vision or hearing loss and their families. As well as improving knowledge and skills, these meet-ups enabled people from 53 regional and remote families to interact and make personal connections.

Find out more:

www.ridbc.org.au/teleschool

Who?

Established in 2007 by the Royal Institute for Deaf and Blind Children (RIDBC), the RIDBC Teleschool provides education and therapy to children across regional and remote Australia. For children with a hearing or vision impairment and their families, the program offers access to specialists and resources not usually found outside capital cities and some large regional centres.

A registered charity, the RIDBC is Australia's oldest and largest independent special education service provider. It runs several on-site schools for sensory-impaired children, and also oversees a cochlear implant program.

Why?

Research shows that children with hearing or vision loss benefit greatly from early intervention and specialist support. But outside of major cities, these services can be hard to come by: families living in regional and remote areas lack access to urban-based programs, and specialist outreach workers also face challenges, including vast distances between clients. To address these barriers, the RIDBC Teleschool aims to provide services of equal quality and intensity to those found in major cities.

How?

The RIDBC Teleschool uses digital technologies to provide high-end, in-home videoconferencing services to children and families living in regional and remote Australia. The school provides education, therapy and support for children and young people from birth to age 18 with significant hearing or vision loss. Experienced teachers, therapists and specialists deliver programs tailored to meet each child's individual needs.

Services include assessments, regular intensive individual sessions, group parent sessions, listening and spoken language development, Auslan (Australian sign language) support, braille tuition, vision loss support, and transition to school and school support.

Along with videoconferencing, the Teleschool also interacts with families using web-based multimedia programs, email and chat, specially developed apps, and face-to-face meetings. Children receive books, toys, puzzles, DVDs and craft materials by post, and parents can access a range of specialists including audiologists, speech pathologists, occupational therapists, physiotherapists, psychologists and orthoptists.

Conclusion

The Australian Digital Inclusion Index (ADII) provides our most detailed picture yet of Australians' online participation. The Index enables us to gauge the degree to which all Australians are sharing in the social, cultural, and economic benefits of digital connection.

Overall, digital inclusion is increasing in Australia. Since 2014, the national ADII score has risen from 52.7 to 54.5, and every state and territory — besides Tasmania — has improved over three years. Nevertheless, many Australians are missing out. Digital inclusion is closely related to income, age, education, and other socioeconomic factors.

Digital inclusion across the three dimensions

The Index illuminates three key dimensions of digital inclusion: Access, Affordability, and Digital Ability. It reveals how these factors change over time, according to social and economic circumstances, and across geographic locations.

Access has increased nationally since 2014. In part this reflects network infrastructure improvements, but is largely due to greater data allowances and the growing range of devices people own. We note that our aggregate measures do not capture outcomes for some specific populations, including remote Indigenous communities.

The Affordability measure has declined. While the value of internet services has improved, households are spending a growing proportion of their income on them (up from 1 per cent in 2014, to 1.17 per cent in 2016). Therefore, despite improving value, the overall Affordability index score has fallen. If this trend continues, it may be cause for concern, particularly for less wealthy Australians.

Digital Ability has increased since 2014. However, all three components – Attitudes and Confidence, Basic Skills, and Activities – began from a low base, and Digital Ability remains low for many groups.

Regional variations

In 2016, the highest-scoring state or territory is the ACT (on 59.7, or 5.2 points above the national average), followed by Victoria (55.9). Victoria's scores are growing particularly strongly. Australia's least digitally included state or territory is Tasmania (on 48.2, or 6.3 points below the national average), followed by South Australia (on 51.6).

Australia's big cities have high digital inclusion. But some rural and regional areas are well behind, including the Hunter region in NSW, Eyre in South Australia, Northern Victoria, Southern Tasmania, North West Queensland, and much of regional WA. Some regional cities, notably Wollongong, score well above others of comparable size (Newcastle and Geelong). The national Capital–Country gap has widened for Affordability and Digital Ability, but narrowed for Access.

Addressing the needs of particular communities

The Index also helps us gauge the digital inclusion of particular Australian communities. Australians aged 65+ are the nation's least digitally included group (on 41.6, or 12.9 points below the

national average). Since 2014 their score rose 1.7 points, against a 1.8-point national average rise.

People with disability have low digital inclusion (44.4, or 10.1 points below the national average). Their score rose 2.6 points over three years, outpacing the 1.8-point national average rise.

Indigenous Australians also have low digital inclusion (46.6, or 7.9 points below the national average). Their score rose 1.6 points, against a 1.8-point national average rise. It should be noted that our data collection did not extend to remote Indigenous communities.

Other digitally excluded groups are people with less than secondary education (on 44.6), people in the second-lowest income bracket (47.6), and people not in paid employment (48.1).

Digital inclusion is high within LOTE communities (57.9, or 3.4 points above the national average). However, this group's score rose just 1.3 points since 2014, against a 1.8-point national average rise. This is a highly diverse group, so care should be taken in interpreting findings.

Areas for further exploration and action

This is our first report, and we will continue to develop and update the Index in coming years.

For now, we can make some general comments:

- *Improving Digital Ability may be the key objective for policy makers, business, the education sector, and community groups in order to rapidly increase digital inclusion. The future of digital inclusion will involve more active personal engagement and content creation.*
- *The Index reveals some unexpected examples of comparatively high digital inclusion within particular groups and regions. More specific in-depth studies could illuminate the driving factors here.*
- *Our aggregated data does not reflect the diversity of experiences for particular populations. Further research and community-specific initiatives are needed to address digital inclusion for particular groups.*
- *Regional and local initiatives will be important in tackling the geographic and social challenges to digital inclusion.*
- *We should closely monitor Affordability, especially in relation to digitally excluded Australians.*
- *Resolving Australia's digital inclusion challenges will require a coordinated effort from business, government and the community.*

The Index is a flexible tool, which we believe will be of value to governments, businesses, community organisations, researchers, and service providers. For example, it may be used to generate more detailed analyses of specific locations or communities, or to help evaluate digital participation programs.

This work has benefited greatly from the input of many organisations and experts. We continue to welcome comments and suggestions, as well as proposals for future research collaborations.

Appendix

Methodology

Data collection

The data used to compile the Australian Digital Inclusion Index (ADII) originates from Roy Morgan Research’s annual, ongoing Single Source survey of 50,000 Australians. In these extensive face-to-face interviews, Roy Morgan collects data on internet and technology products owned, internet services used, internet and technology attitudes, and demographics.

To conduct the [Single Source survey](#), an Australia-wide sample is selected from 550 sampling areas of approximately equal population size. Using strict sampling protocol, each weekend Roy Morgan’s trained interviewers interview people in their homes, and directly enter the resultant data into tablet computers, using computer assisted personal interviewing (CAPI).¹

All ADII scores are subject to ‘margins of error’, depending mainly on the sample sizes on which they are based.² A full set of data tables for the ADII can be viewed at www.digitalinclusionindex.org.au

Structure of the Index and sub-indices

To determine the degree of overall digital inclusion in Australia, we measured people’s levels of access to the internet, along with related products, services, expenditure, activities, attitudes, and skills. To help clarify the many factors in play, the ADII (‘the Index’) is made up of three sub-indices, or dimensions:

Access

Affordability

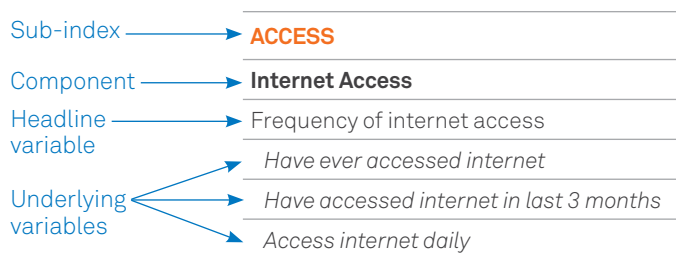
Digital Ability

Each sub-index is made up of a number of *components*, which have themselves been calculated from numerous variables. These *variables* are either sourced directly from the Roy Morgan Single Source database, or derived from the data according to the formulas outlined below.

Variables come in two levels: ‘headline variables’ are thematic composites of ‘underlying variables’ (individual survey questions), and are generally calculated as simple averages.

For example, the underlying variable ‘Have ever accessed internet’ (see Table 1a) feeds into the headline variable ‘Frequency of internet access’, which then feeds into the ‘Internet Access’ component, and so on. Conversely, the ‘Frequency of internet access’ headline variable is the average of its three underlying variables (see Table 1a below).

Similarly, *components* are simple averages of headline variables. For example, the ‘Internet Access’ component is the average of the ‘Frequency of internet access’, ‘Places of internet access’, and ‘Number of internet products’ headline variables. Moving upwards through the hierarchy of the Index structure, the sub-indices and the overall Index itself are also calculated as simple averages. The Index structure, with a full list of variables, is detailed in Tables 1a, 1b and 1c, below. The diagram to the right is an example of how each sub-index is structured, with the various elements labelled.



First sub-index: Access

The Access sub-index consists of three components:

Internet Access, measured by frequency of access, places of access, and the number of access points.

Internet Technology, including variables related to computers, mobile phones, mobile broadband, and fixed broadband.

Internet Data Allowance, which measures mobile and fixed internet data in terms of whether there is any access at all, relative to a minimum threshold of useful data allowance,³ and benchmarks set proportional to national averages.⁴

Access

Internet Access	Internet Technology	Internet Data Allowance
<ul style="list-style-type: none"> Frequency of internet access: <ul style="list-style-type: none"> - Have ever accessed internet - Have accessed internet in last 3 months - Access internet daily Places of internet access: <ul style="list-style-type: none"> - Have accessed internet from home - Have accessed internet away from home Number of internet products: <ul style="list-style-type: none"> - One or more internet products - Two or more internet products 	<ul style="list-style-type: none"> Computer technology: <ul style="list-style-type: none"> - Have personal computer or tablet computer in household Mobile internet technology: <ul style="list-style-type: none"> - Own or use mobile phone - Have mobile phone on the 4G network - Have mobile internet Fixed internet technology: <ul style="list-style-type: none"> - Have fixed broadband - Have cable or NBN fixed broadband 	<ul style="list-style-type: none"> Mobile internet data: <ul style="list-style-type: none"> - Have mobile internet - Have mobile internet data allowance over 1GB - Mobile internet data allowance relative to benchmark Fixed internet data: <ul style="list-style-type: none"> - Have fixed broadband - Have Fixed Broadband data allowance over 10GB - Fixed Broadband data allowance relative to benchmark

Table 1a: Access sub-index: structure and variables

Second sub-index: Affordability

Affordability is a key aspect of digital inclusion, and is made up of two components:

Relative Expenditure, measured as the share of household income spent on internet access (mobile phone, mobile broadband, and fixed broadband), and then related to benchmarks set to national relative expenditure quintiles.⁵

Value of Expenditure, calculated as total internet data allowance (mobile phone, mobile broadband, and fixed broadband) per dollar of expenditure on internet access, and then related to benchmarks set to national value of expenditure quintiles.⁶

Affordability

Relative Expenditure <ul style="list-style-type: none"> Share of household income spent on internet products relative to benchmark 	Value of Expenditure <ul style="list-style-type: none"> Internet data allowance per dollar of expenditure relative to benchmark
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Table 1b: Affordability sub-index: structure and variables

Third sub-index: Digital Ability

Digital Ability captures both the confidence with which we use the internet and associated technologies, and the extent to which they are integrated into our lives. As such, the Digital Ability sub-index consists of three components:

Attitudes, measured by responses to five survey questions related to notions of control, enthusiasm, learning, and confidence.⁷

Basic Skills, consisting of six categories: basic,⁸ mobile phone,⁹ banking,¹⁰ shopping,¹¹ community,¹² and information skills.¹³

Activities, which mirror the six categories of basic skills, but are more advanced: accessing content,¹⁴ communication,¹⁵ transactions,¹⁶ commerce,¹⁷ media,¹⁸ and information.¹⁹

Digital Ability

Attitudes <ul style="list-style-type: none"> Computers and technology give me more control over my life I am interested in being able to access the internet wherever I am I go out of my way to learn everything I can about new technology I find technology is changing so fast, it's difficult to keep up with it (X) I keep my computer up to date with security software 	Basic Skills <ul style="list-style-type: none"> General internet skills Mobile phone skills Internet banking skills Internet shopping skills Internet community skills Internet information skills 	Activities <ul style="list-style-type: none"> Streamed, played, or downloaded content online AV communication via the internet Internet transaction or payment Purchased or sold a product online Created or managed a site or blog Searched for advanced information
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Table 1c: Digital Ability sub-index: structure and variables

¹ Roy Morgan Research adheres to the Code of professional behaviour of ESOMAR and the Australian Market and Social Research Society, the Federal Privacy Act and all other relevant legislation. Roy Morgan Research is certified to the AS/NZS ISO9001 Quality Management Systems standard and the AS ISO 20252 Market, Opinion and Social Research standard.

² As the ADII scores originate from survey data, and are estimates, in each case there will be a margin of error that is dependent on the size of the sample. See [Roy Morgan's Margin of Error Reference Table](#) for a general explanation of how margins of error typically relate to survey estimates, based on sample sizes.

³ 1GB was chosen for mobile phone and mobile broadband, and 10GB was chosen for fixed broadband, as these were the lowest quanta in the survey data. The benchmark was set at 20% above the nationwide average data allowances; and respondents with data allowances greater than the benchmark scored 100. For mobile internet data allowance the benchmark was 5.5GB, while for fixed internet data allowance the benchmark was 385GB..

⁵ Since affordability improves as this metric decreases, respondents in the lowest quintile receive the highest score (100), and receive progressively lower scores as they occupy higher Relative Expenditure quintiles (i.e., 80, 60, etc.). Also, because a fully excluded person does not have any data allowance, and thus has no expenditure, those respondents with 0% Relative Expenditure receive a score of 0. Relative Expenditure quintiles (and scores) are: <0.73% (100); 0.74–1.13% (80); 1.14–1.65% (60); 1.66–2.75% (40); 2.75% or more (20); 0% (0).

⁶ Since affordability improves as this metric increases, respondents in the highest quintile receive the highest score (100), and receive progressively lower scores as they occupy lower Value of Expenditure quintiles (i.e., 80, 60, etc.). Also, because a fully excluded person does not have any data allowance, and is thus assigned a zero score, those respondents with 0% Value of Expenditure receive a score of 0. Value of Expenditure quintiles (and scores) are: 0 GB/\$ (0); 0.01–0.1 GB/\$ (20); 0.11–0.7 GB/\$ (40); 0.71–2.6 GB/\$ (60); 2.61–6.8 GB/\$ (80); 6.81 GB/\$ or more (100).

⁷ Respondents should agree with these statements to score 100, except for the statement 'I find technology is changing so fast, it's difficult to keep up with it', which should be disagreed with to score 100.

⁸ General browsing and email; scores for each of these activities are averaged to arrive at the basic internet skills score.

⁹ Using a mobile phone to access the internet and download an app; scores for each of these activities are averaged to arrive at the mobile phone skills score.

¹⁰ Checking bank account balance, or viewing online bank statements (either/or).

¹¹ Researching a product or services to buy, reading ratings/reviews of products or services, using price comparison websites, or reading online catalogues/classified ads (either/or).

¹² Social networking (e.g. Facebook, Twitter), business networking (e.g. LinkedIn), online dating (e.g. RSVP), chat rooms, online forums, or reading/commenting on online newspaper articles/blogs (either/or).

¹³ Accessing news/weather/sport, reading newspapers/magazines/celebrity news, searching for maps or directions, traffic or public transport information, travel information and services, or entertainment/restaurants/what's-on information (either/or).

¹⁴ Streaming, playing, or downloading games, music, radio, video, TV, movies, podcasts, or software/programs.

¹⁵ Instant messaging (e.g. Google Hangouts), making telephone calls via internet (e.g. Skype, VoIP), or business video conferencing (either/or).

¹⁶ Conducting banking transactions online, paying bills online, using online payment/money transfer system (e.g. PayPal, BPAY), paying for purchases using a credit card (either/or).

¹⁷ Purchasing or selling a product online.

¹⁸ Creating or managing an online journal or blog, registering a website, or creating/managing own website (either/or).

¹⁹ Searching online for jobs/employment, government information and services, health or medical information, or IT information, or participating in online education (either/or)

Appendix

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Who We Are

The following partner organisations worked together to create the Australian Digital Inclusion Index (ADII) and produce this research:

Swinburne Institute for Social Research, Swinburne University of Technology

The Swinburne Institute for Social Research (SISR) is one of Australia's largest social science and humanities research centres. The SISR focuses on some of Australia's most challenging social, economic and environmental problems, including digital inclusion. We collaborate with industry, government and community partners to extend the evidence base, identify solutions to complex problems, and contribute to public debate. With expertise in a range of disciplines including economics, statistics, sociology, history, media studies and political science, SISR is well known for its innovative work on the social aspects of communications and new media.

www.swinburne.edu.au/research/institute-social-research

Telstra

Telstra is a leading telecommunications and technology company with a proudly Australian heritage and a longstanding, growing international business. In Australia we provide 16.9 million mobile services, 7.2 million fixed voice services and 3.3 million retail fixed broadband services. For many years we have been providing products, services and programs to support digital inclusion, including more than \$2 billion of customer benefits over the past decade through our Access for Everyone programs. We believe all Australians should be able to connect, participate and interact safely in the digital world – irrespective of age, income, ability or location – and we recognise the fundamental role Telstra can play in enabling digital and social inclusion.

www.telstra.com.au

The Centre for Social Impact Swinburne

The Centre for Social Impact (CSI) is an independent, not-for-profit research and education partnership spanning three of Australia's leading universities: UNSW Australia, Swinburne University of Technology, and The University of Western Australia. CSI acts as a catalyst for social change by creating knowledge through research, and transferring that knowledge through teaching and public engagement. CSI Swinburne's focus is on developing leaders, organisations, and policy conditions that support progressive social change in the areas of: social innovation; social investment and philanthropy; business and social impact; and measuring and demonstrating social value.

www.swinburne.edu.au/research/social-impact

Roy Morgan Research

Roy Morgan Research has more than 70 years' experience in tracking consumer and social trends, and developing innovative methodologies and new technologies. Proudly independent, we've built a reputation based on our accurate data and products which include our extensive Single Source survey, and new digital research technologies such as Helix Personas, and Roy Morgan Audiences. Single Source, Helix Personas, and Roy Morgan Audiences integrate together to provide a comprehensive digital and offline customer engagement, marketing and media strategy offering.

The Australian Digital Inclusion Index (ADII) data is available for purchase. To learn how Roy Morgan's deep data resources can help your business, contact: AskRoyMorgan@roymorgan.com

www.roymorgan.com

More information about the ADII, including region-specific data, is available at www.digitalinclusionindex.org.au

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