

## Mobile Consumer Survey 2019

Unwired. Unrivalled. Unknown.

The Australian Cut

# Introduction

Picture our world without smartphones – it's impossible.

Today we manoeuvre our lives through the tap of a button, the swipe of a screen and a spoken command. Our dependence on these devices is so absolute that it has come to define the last period of our history – what we like to call 'The Smart Decade'.

From where we stand in 2019, at the tail end of this decade, the world is a vastly different place. And as we peer into the next, on the cusp of 5G-driven digital experiences, the only certainty is it will be different again. This report seeks to chart where we are and where we're headed: a society that has become unwired, a technology unrivalled in its dominance, and the emerging frontiers on which mobile's impact is still unknown.

## About the survey

The Mobile Consumer Survey, now in its sixth year in Australia, is a multi-country study of mobile phone users around the world. The 2019 study comprises more than 44,150 responses across 28 countries. Australian findings are based on a nationally representative sample of over 2000 consumers aged 18 to 75, polled online during June 2019.



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# Key insights

## Mobile battlegrounds

- Mobile is starting to **lose ground in the connected home** as voice-assisted speakers, which have seen a 51% increase in estimated penetration, encroach on its role as a user interface for home services and entertainment.
- Mobile is **gaining ground in ecommerce**, overtaking desktop computers as the second most **preferred device to make online purchases**, particularly for women.
- Mobile still holds the reins on music, gaming and short-form video consumption. At the same time, it is also **gaining ground in long-form content with 27% of respondents streaming films or TV series at least once a week**, up fivefold from 5% in 2015.

## Innovation and evolution

- **Smartphone sales are slowing** as Australians hold onto their devices for longer – around three-and-a-half years on average, up from three years in 2017.
- **Premium manufacturers are still favoured**, with Apple and Samsung holding 40% and 36% market share respectively.

- At 91% penetration, consumers need a compelling reason to upgrade. The current evolution is pushing smartphone functionality into the **territory of tablets and DSLR cameras**.
- The impending roll out of **5G** in Australia is being met with a lukewarm reception from consumers – current **use cases appear tilted towards the enterprise** and **up to 84% of consumers are not convinced** it is worth the proposed \$15 monthly premium operators are vying for.
- **5G hype is decreasing**, with the percentage of respondents who would switch to 5G as soon as it is available or upon hearing good things, down by 5% compared to 2018.

## The health paradox

- Up to **one in four** Australians are using their mobiles to **monitor their health and wellbeing**, with an increasing array of physical and mental health-related apps on the market to support healthier habits.
- However, the damaging impact of our constant attachment to our phones is prompting a **surge in those trying to limit their usage**, from 38% in 2018 **to 60%** this year.

- Businesses are responding to this through the '**digital detox**' economy – apps, retreats, and incentivisation programs to support and reward Australians for reducing their smartphone exposure.

## A new privacy frontier

- Consumers are increasingly wary of the data they share and conscious of their right to withhold information, with **52%** of respondents having **used privacy enhancing applications** and **89% at some point having denied an app access** to location, photos, contacts, or other mobile phone features.
- Convenience and growing availability are driving increased use of biometric authentication. Since 2017, adoption of facial recognition software on the phones of respondents has seen a **100% compound annual growth rate** (supported by the release of the iPhone X and other handsets), while **fingerprint-authorised payments is also on the rise**, especially among millennials.

## From mobile to mobility

- Only **a third of Australians would be willing to pay a premium** for connected car features, with 18-24 year olds prepared to pay more than any other age group.
- Aside from route mapping and real-time traffic update features that are already ingrained in our daily lives via mobile apps, respondents **most valued the connected features** of automated vehicle diagnosis, parking availability updates and fuel efficiency tracking.



# Mobile battlegrounds

Over the past decade, mobile has become a remote control for our lives, playing an integral role in how we live, transact and relax. But behaviour is shifting. Mobile is gaining ground as our go-to device for some activities but in others, the battle for mobile supremacy is just getting started.



# Mobile battlegrounds

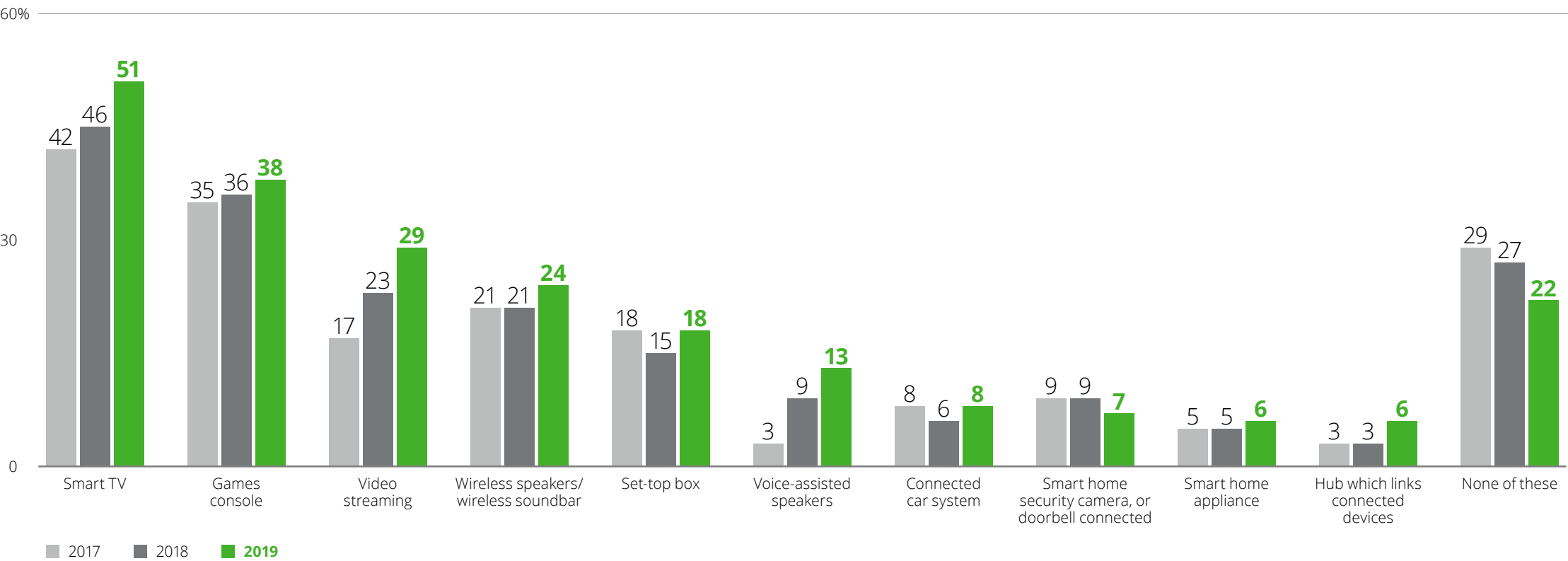
## Phone is where the heart is

As our homes literally start buzzing around us, mobiles have become a tool for optimising our comfort and surrounds at all times. Seventy-eight percent of respondents own or have access to connected home devices, up from 73% in 2018. The most popular continue to be entertainment-based devices, with 51% of respondents owning a smart TV and 38% owning a gaming console (growing from 46% and 36% last year respectively).

Bucking the trend are home control devices, with less than 10% of respondents owning smart lighting, thermostats or appliances. Despite the hype, users are still not seeing value in these products, naming pricing, reliability, lack of interoperability and trust concerns as barriers to purchase<sup>1,2</sup>

Graph 1: Access to connected devices (2017-19)

“Which, if any, of the following connected devices do you own or have ready access to?” (%)



# Mobile battlegrounds

Addressing these concerns will be paramount for providers wanting to win in smart home solutions. Consumers see clear benefit in these devices: 51% of consumers see the most value in services supporting home control (e.g. smart lights and thermostats) and home monitoring (e.g. alarm systems and cameras) and half of respondents are willing to pay for home monitoring services (up to 70% of 18-24 year olds).

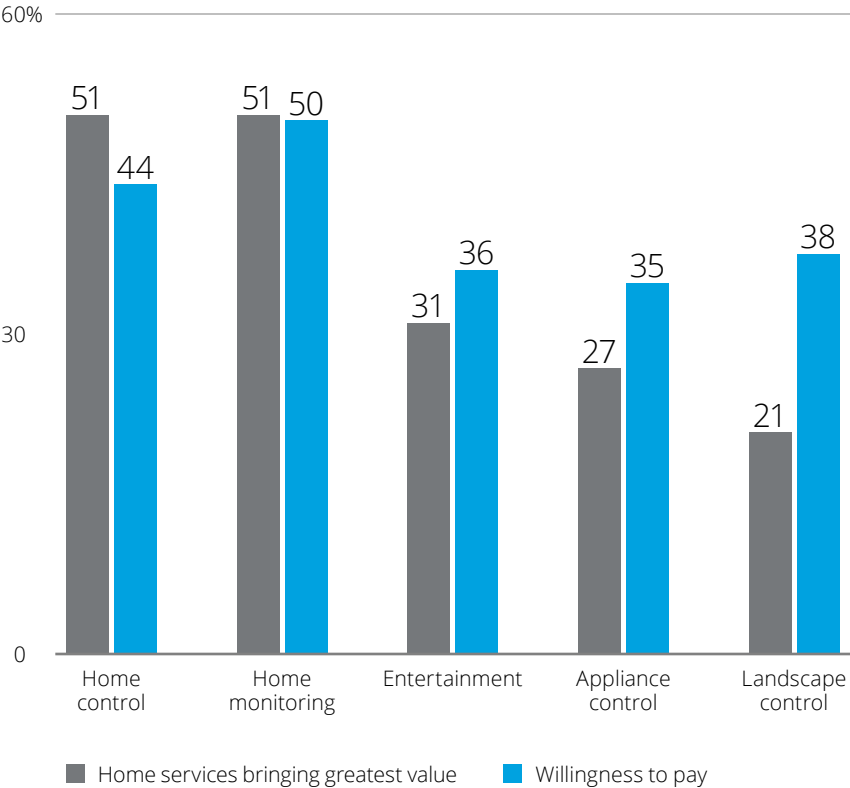
But 55% of respondents see hacking or technology failure as a threat, leaving their connected homes vulnerable to damage or theft. The growing cyber security market for Internet of Things (IoT) in the home is testament to this pervasive concern<sup>3</sup>

Despite 43% of respondents having fears of smart home technologies knowing too much about their personal lives, more Australians are using voice-assisted (VA) speakers and home hubs, with year-on-year growth of 51% and 115% respectively. In fact, Australians used VA speakers 430 million times in 2019<sup>4</sup>, despite use only reflecting 10% of the population (with 13% ownership).

Already, VA speakers are heavily used to perform simple voice commands; 59% of respondents use them to play music, 55% to get weather updates, and 52% to conduct general searches. Their use to control smart home appliances has risen to 21% from 18% in 2018, demonstrating their growing value in the home. VA speaker owners are also much more likely to own additional smart home devices as ease of use and functionality increases. However, their value is dependent on devices being compatible and the necessary voice instructions, known as ‘actions’, being developed. Amazon’s early focus on building this advantage is demonstrated by its close to 60,000 actions vs. Google’s 4,200<sup>5</sup>

**Graph 2: Value in home services vs. willingness to pay (2019)**

“Which of these would you find of greatest value? How much would you be willing to pay for each way of connecting your home and/or car(s) to the internet?” (%)



# Mobile battlegrounds

## Purchases from your palm

Mobile is the fastest growing device for ecommerce payments with 24% of respondents now using their mobile as their preferred device for online purchases, overtaking desktop computers for the first time. This leaves only laptop computers ahead of mobiles, preferred by 34% of respondents.

The 25-34 age group are leading the pack when it comes to adopting mobile as the preferred device for online purchases. However, gender also plays a role, with females preferring to use their mobiles (30% of females vs. 18% of males), while males remain committed to desktop computers (29% of males vs. 15% of females).

We're not just buying online – mobile is increasingly moving in store as well. Thirteen percent of respondents have used the mobile 'tap and pay' solutions offered by their bank, such as NAB Pay.

Of the global mobile payment solutions, Apple Pay is currently the most popular, used by 8% of respondents, followed by Samsung Pay (5%) and Google Pay (5%). The 18-24 age group is dominant when it comes to using smartphones for making payments in store, with 18% using Apple Pay.

Mobile payments are a key battleground for device manufacturers and software developers, as they attempt to embed their payment ecosystem into the everyday lives of consumers. This is likely to expand beyond the mobile device itself, as evidenced by the recent launch of Apple Card: a physical credit card to complement Apple Pay. Combined with the 3% of respondents now using wearable device solutions, such as Fitbit Pay and Garmin Pay, the competition in mobile payments is clear.

## What wallet?

As Australia moves to a cashless and cardless society, mobile is increasingly becoming part of the in-store shopping experience. Woolworths recently trialled 'scan and go' technology, where customers scan product barcodes on their mobile device as they shop and walk out without the need for any form of check-out process<sup>6</sup>

7-Eleven has also opened its first cashless and cardless store in Victoria, which uses a similar scanning process to Woolworths<sup>7</sup>. However, mobile 'tap and go' payments are already being challenged by completely automated walk-in walk-out shopping experiences, like Amazon's Go store. They may become increasingly redundant as facial recognition through CCTV enables shoppers to be identified and charged without lifting a finger.



# Mobile battlegrounds

## Handset headlines

Mobile remains our preferred device to consume news, but Australians are less interested in tuning in at all. Only 39% of respondents are reading the news weekly, compared to 48% last year. While mobile is the best way to catch the major headlines, radio is still the most trusted source of information as Australians become increasingly concerned about 'fake news' online.<sup>8</sup>

## The sound of music (and podcasts)

Whatever our age, whatever our genre, Australians love music – and mobile is our preferred platform to access it. Forty percent of consumers are playing music on their phones regularly compared to 33% last year, an uplift consistent across all age groups. The most avid listeners, and those who are most likely to have access to Spotify, are 18-24 year olds – 70% of whom are using their phones regularly to listen to music. But it's not just music filling our headphones; the 2019 Deloitte Media Consumer Survey revealed 44% of all respondents identified themselves as podcast listeners, 47% of whom consume at least one episode each week.<sup>9</sup>

## A nation of mobile gamers

Mobile also continues to be the preferred device for Australians to play games. Compared to consoles and select niche mobile handsets (e.g. ASUS Rog), which focus more intently on the gaming experience, most mobile gaming focuses on the mass market by providing a convenient way to pass the time. By appealing more broadly to consumers in this way, mobile gaming apps continue to have the highest install and user growth globally.<sup>10</sup>

The biggest mobile gamers are 35-44 year olds, closely followed by the 18-24 age group. Australian females play mobile games more often than males, having accessed their mobile games at least 890 million times in 2019 compared to 670 million times by males.<sup>4</sup> One in three females play mobile games, while males prefer gaming consoles over mobile.

## Break out the popcorn

Mobile remains the preferred device for watching short videos – including live posts or stories – with 51% of Australians tuning in weekly. Younger Australians are leading the trend, with half of 18-24 year olds watching short videos on their mobiles at least once a day.

While user-generated content continues to capture attention, it's not all we're watching. Three in five Australians now have access to video on-demand services and nearly half (48%) have Netflix. Binge watching on mobile is increasing across all age groups, with 43% of Australians having streamed films and/or TV series on their smartphones this year, an uplift of 12% from last year.

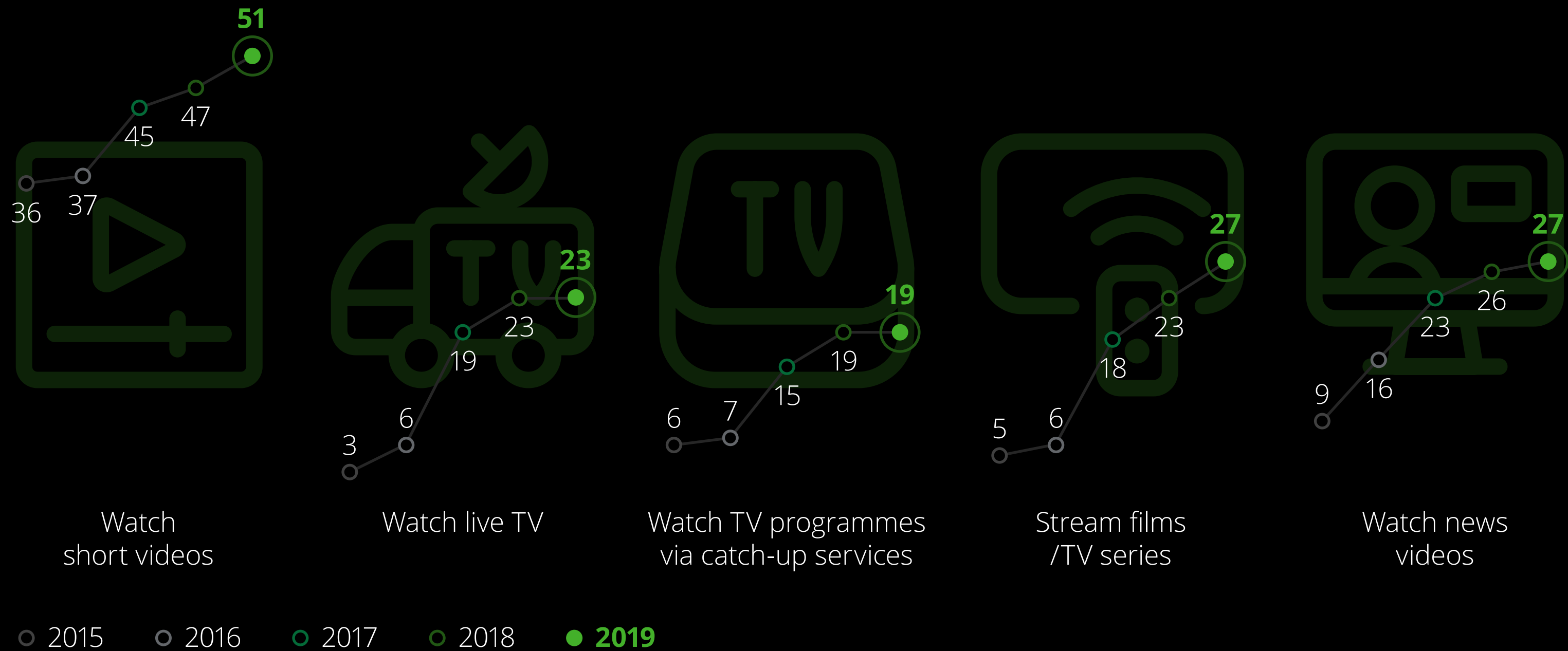
The biggest increase is in the 18-24 year old segment – 25% consider video streaming as very important when hunting for their mobile plans – closely followed by 35-44 year olds.

Recent market movers, such as Kayo and the Qantas app for in-flight entertainment, are new examples of Australian mobile applications joining the host of entertainment options, inspiring and conditioning long-form content consumption.



**Graph 3: Weekly phone activities (2015–19)**

“Which activities do you do at least once a week on a mobile phone?” (%)



# Innovation and evolution

We've reached peak smartphone. Not only do more of us have these devices but we're holding onto them for longer. It's keeping manufacturers on their toes as they look to innovation to capture consumers' imaginations – and their wallets.



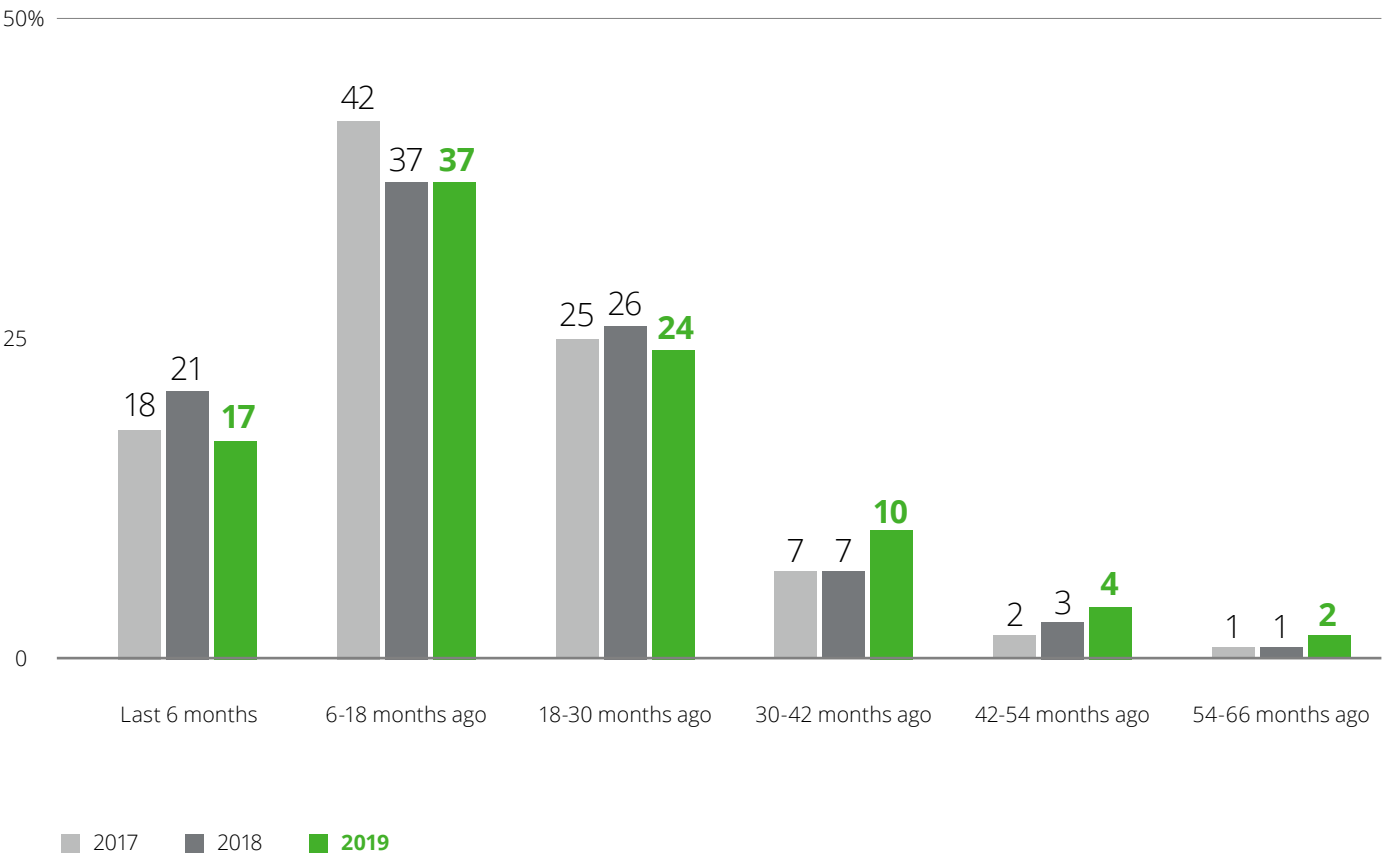
# Innovation and evolution

## Device sales max out

Smartphone penetration has grown from 76% to 91% over the past six years, with Australians aged over 55, as well as those based in Western Australia and Queensland, the last cohorts to jump on board. However, smartphone sales are slowing and consumers are holding onto their devices for longer – around three-and-a-half years on average, up from three years in 2017!

Premium manufacturers are still favoured, with Apple and Samsung holding 40% and 36% market share respectively. However, this may change if the early move to 5G-enabled handsets, by companies such as Oppo and LG, creates an uplift in market share. Yet, smartphones sales are in decline, falling 3% in the second half of 2018<sup>2</sup>. Consumers are not currently seeing the tangible benefit of new upgrades, however they have doubled down on accessories, with the ownership of wearables (e.g. fitness bands and smart watches) on the rise.

**Graph 4: Average length of phone ownership**  
“When did you buy or received your current smartphone?” (%)



# Innovation and evolution

## Device innovation

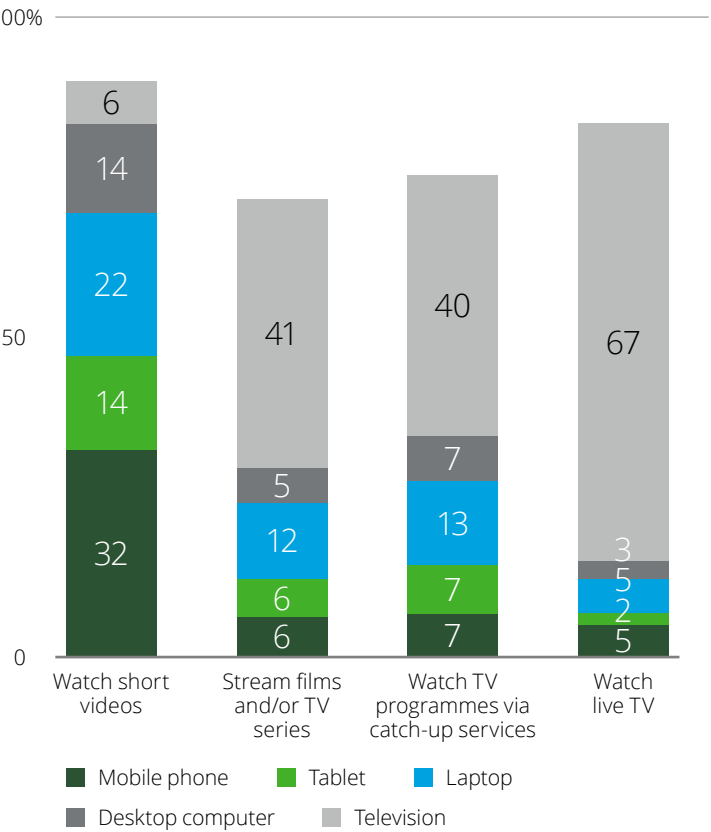
With consumers holding onto their phones for longer, smartphone manufacturers are getting creative, seeking to unlock new device purchases through multipurpose device functionality. Foldable phones are in development and allow access to a larger, tablet-like display on unfolding. Survey respondents indicated they use smartphones and tablets almost equally for streaming films and TV, a shift from previous years that favoured long-form content on tablets.

Smartphone camera innovation has also stepped up to the plate, with new offerings helping compete with traditional cameras. Phone cameras, such as the Huawei P30 and Oppo Reno 10x Zoom, leverage periscope-like technology to enable powerful optical zoom capabilities in the slim body of a smartphone<sup>3</sup>. This hardware allows the Huawei P30 to achieve up to 50x digital zoom<sup>3</sup>. 2019 also saw the launch of the Nokia 9 PureView, containing five rear cameras that serve to capture greater detail and texture in its photos<sup>4</sup>.

Apple is also set to follow this trend, embedding a third camera sensor, to capture ultra-wide-angle photos and videos, into its new iPhone Pro range<sup>5</sup>. Such powerful developments in these devices pose a challenge to the need for traditionally bulky DSLR cameras, particularly given the potential for super hi-res images (e.g. 1TB) enabled through 5G.

A possible game changer in the innovation market may be Apple’s new U1 chip, which will improve positioning data by allowing iPhone 11 Pro users to precisely and securely locate other U1 equipped devices. Using ultra-wideband technology for spatial awareness, users will be able to prioritise nearby devices to AirDrop to/from, detecting distance and direction on a much smaller scale – as Apple describes it, “Think GPS at the scale of your living room”. Once Apple pairs with 5G, the opportunities for augmented reality (AR) will be endless<sup>6</sup>.

**Graph 5: Device usage**  
“Which, if any, is your preferred device for each of the following activities?” (%)



# Innovation and evolution

## 5G: Lemons or Lemonade?

The roll out of 5G presents myriad opportunities to improve the connectivity of individuals, businesses and communities through one-millisecond response times and high-precision activities. Use cases, from assisted driving and virtual surgeries, to firefighter AR goggles and home care robots, paint a picture of efficiency for our future enterprises. However, the current consumer value proposition of 5G, beyond being able to download Beyonce's *Homecoming* in less than 10 seconds<sup>7</sup>, is less clear.

The latest 5G phones are being equipped with enhanced processing power to cater to the capabilities it will enable, such as AR, virtual reality (VR) and artificial intelligence (AI). For example, the Samsung Galaxy S10 5G contains unique 3D depth sensors<sup>8</sup> which have the potential to improve AR gaming experiences. However, with the full extent of 5G network functionality still a long way off (likely to come to life by 2022), consumers are unlikely to realise these benefits immediately.

## Incremental or explosive?

We are now beyond the peak of inflated 5G expectations. The hype is losing heat among Australian consumers, with respondents now less likely to switch immediately to 5G than they were last year. This lukewarm response could reflect consumers' reactions to proposed 5G pricing and reviews of the limited current consumer use cases.

Telstra is set to charge an additional \$15 per month for 5G access bundled with 5G-enabled handsets and large data plans<sup>9</sup> – yet survey results suggest up to 84% of respondents are not willing to accept this premium. The ability of network operators to recover investment through consumer plans will hinge on communicating the value enabled through 5G applications, which are still in their early infancy.

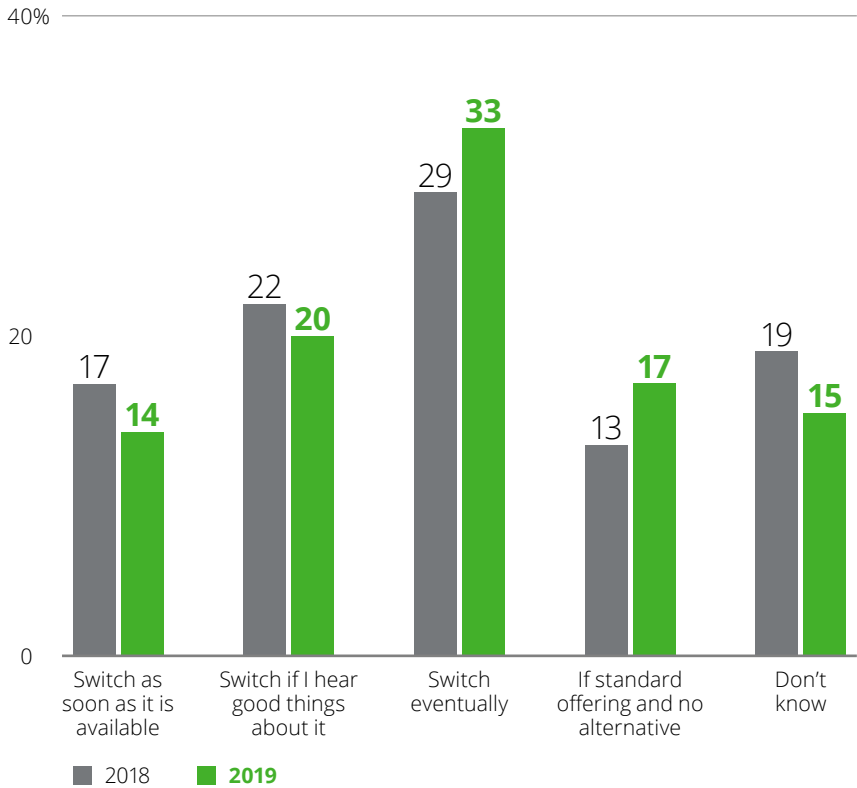
Changing the consumer perception of 5G's value may require more novel approaches, such as new experiential activations. Telstra exemplified this with its promotional '5G at the G' event<sup>10</sup>, partnering with the Melbourne Cricket Club and Ericsson to install 5G into the Melbourne Cricket Ground ahead of the 2019 AFL Grand Final. This allowed customers on Telstra 5G who attended the game to experience faster browsing and downloads at an event that, in its previous year, saw 3.8 terabytes of data sent over the network – the equivalent of 1200 hours of content or 27 billion SMS messages<sup>10</sup>.

By providing glimpses of the value enabled by 5G applications, these 'try before you buy' actions may convince consumers to accept the 5G premium.



# Innovation and evolution

**Graph 6: When would you switch to 5G? (2018–19)**  
“Which of the following best describes your attitude towards 5G networks” (%)



## Hype around the globe

Part of the tepid reception to the 5G roll out may be due to infrastructure delays. In South Korea, where the technology was first rolled out, a million subscribers signed up within 69 days; 11 days faster than 4G's uptake!<sup>11</sup> However, this was driven by aggressive commercial promotions from local mobile operators showing K-pop idols as the world's first subscribers<sup>12</sup> rather than due to 5G-service functionality, which had a number of issues with coverage and speed on launch.<sup>13</sup> Korean consumer hype was also driven by strong demand for 5G devices,<sup>13</sup> with the Samsung Galaxy S10 5G's launch based in South Korea.<sup>14</sup>

Similar hype was experienced in the UK, with mobile operator EE launching 5G in June this year, to be quickly followed by Vodafone, Three and O2 by the end of the year.<sup>15</sup> Initial reviews indicate the potential for uptake is there but coverage has a long way to go, with maximum speeds yet to be reached in the first six cities for 5G deployment.<sup>15</sup> The consensus has been that the roll out of 5G has been smoother than 4G, and that moving to a 5G plan is not worse. However, it will likely only be the early adopters using the network until greater coverage and device diversity are available.<sup>16</sup>



### Graph 7: Willingness to pay for 5G (2019)

"If 5G network speeds were 10x faster than those provided by 4G/LTE networks, how much more per month, if anything, would you be willing to pay in addition to your current mobile plan?" (%)



# The health paradox

Mobile is helping us manage our health – but it may also be hindering it. As smartphone obsession reaches a fever pitch and more Australians find themselves relying on their mobiles, new products are helping us disengage from our screens. But will they pick up steam?



# The health paradox

## Quantifying health

The past decade has seen a surge in digital products enabling us to track, monitor and manage our health like never before – from the launch of Fitbit in 2007 to Apple’s ‘Health’ app in 2014. Australians are increasingly using connectivity to track their physical health, with adoption up across most age groups. Fitness band penetration, the most common wearable technology, is now at 22%, an increase of 3% from last year.

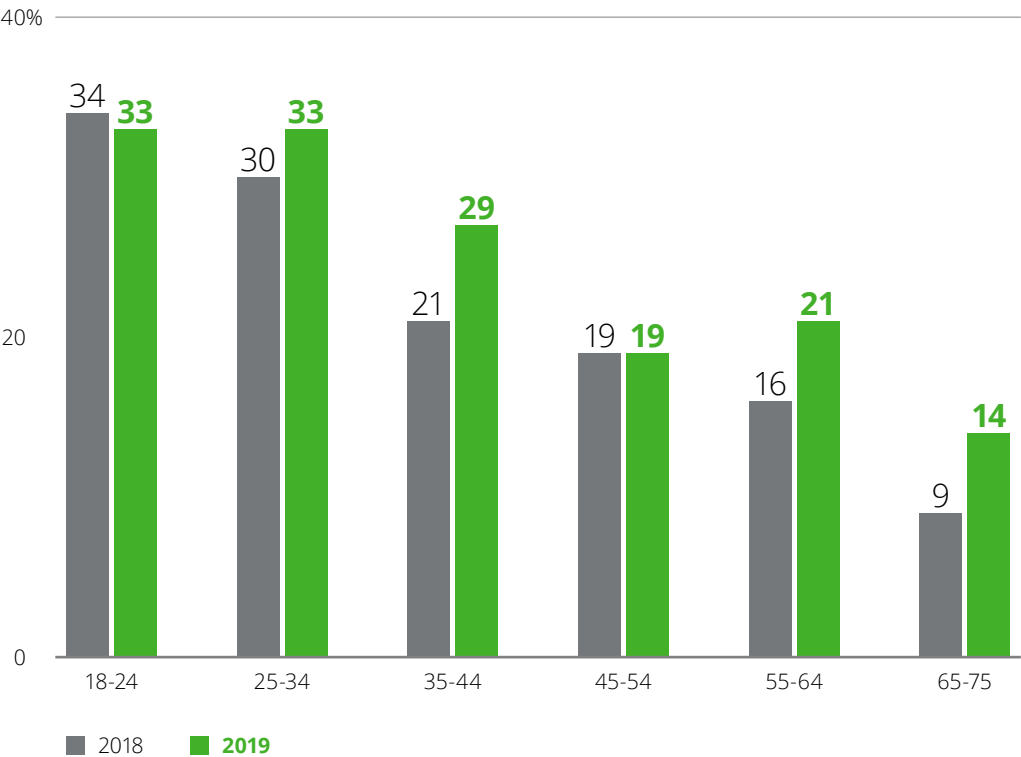
Some Australians are using their health data to engage with providers. For example, AIA Australia offers health insurance packages with lower premiums to incentivise consumers to digitally engage with their health through its wellness program, Vitality.<sup>1</sup> But Australians still have low awareness of whether their health data is being shared with third parties, with just 7% of respondents citing awareness.

Fast-moving tech designers and progressive sporting organisations are also capitalising on this data-driven sweat-fest through the productisation of physical activity. Recently, the NBA partnered with NEX team, a leading mobile AI company and the developer of HomeCourt; a mobile basketball training application that uses advanced machine learning and computer vision to create a new basketball experience.

The partnership enables players to analyse and develop their technique with NBA-themed challenges, and share their progress with the app’s global basketball community.<sup>2</sup>

**Graph 8: Use to monitor fitness levels (2018–19)**

“Do you use a mobile website or an app on your smartphone to monitor fitness levels?” (%)



# The health paradox

## Mindful or mobileful?

Smartphones are providing access to mental health support more easily than ever before, with apps targeting early detection and symptom management. The Black Dog Institute has introduced Digital Dog; a research team focused on developing and testing a suite of online mobile apps, websites and games to help lower depression, suicide risk, and stress<sup>3</sup> Research teams at Flinders University worked with technology developer, goAct, to develop MINDtick; an app that assists with early detection of mental illness by accessing smartphone data. By drawing on information such as a user's location or how a user is spending their day and if that changes over time, unusual behaviour can trigger professional mental health intervention when necessary<sup>4</sup> However, the ability to quickly and accurately detect changes in our mental state raises questions about the privacy of our health data and the ability of those with mental health challenges to provide consent to companies to use their data.

Further, it brings into question the ability of companies to avoid conflicts of interest, as many of these apps connect users to businesses. These challenges reflect the unknown battlegrounds for mobile ehealth to overcome.

## Symptoms of excess

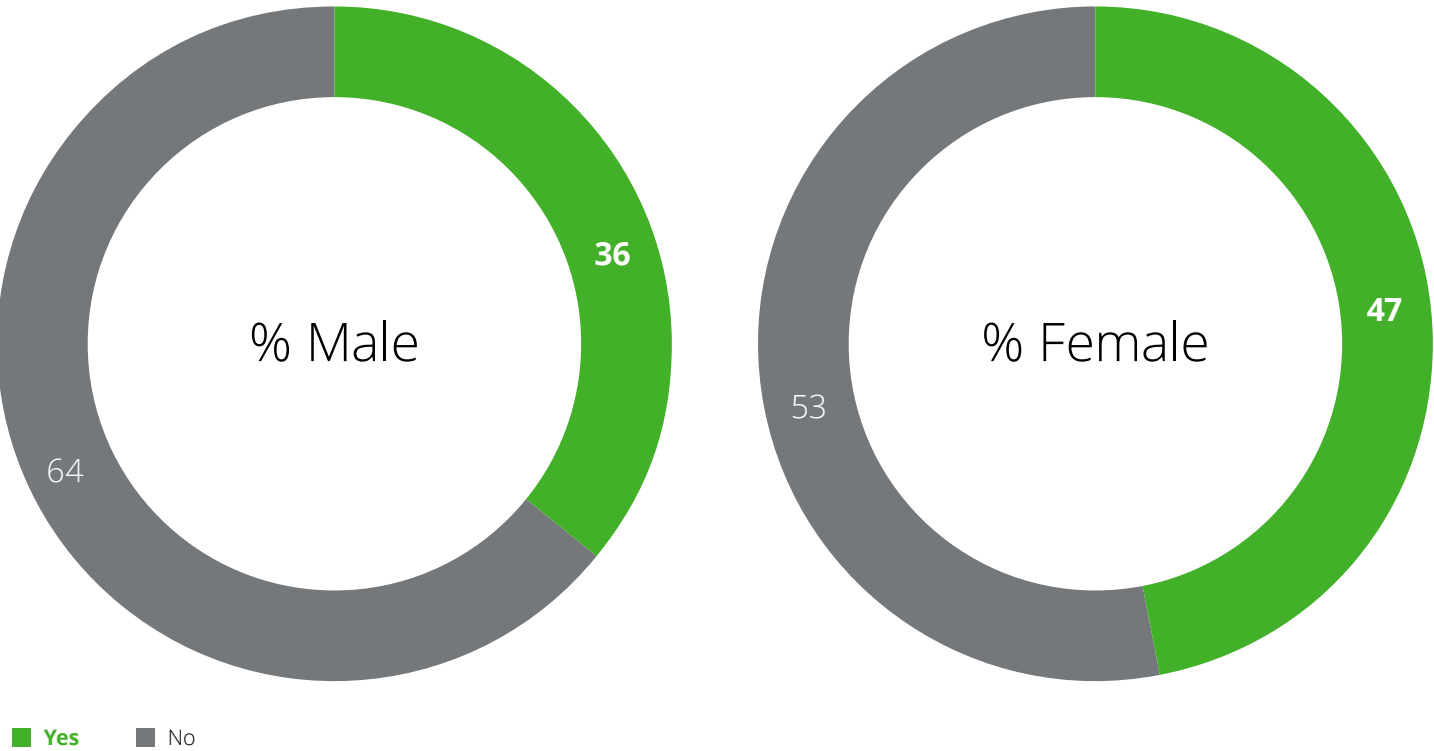
While there is limited research to prove a causal link between mobile phone use and mental health disturbances, a plethora of studies have been conducted that measure the changes in the incidence of depression and anxiety<sup>5</sup> over the past decade, and which have found positive correlations with mobile phone and social media use. Our survey results indicate respondents who perceive they use their phones too much are three-and-a-half times more likely to feel 'FOMO', four times more likely to not go to sleep when they intended to and five times more likely to feel anxious or stressed without their phone. Fourteen percent of respondents even claim they experience physical pain as a result of overuse.

**Figure 1: Mental health**  
What our smartphone is tracking and the potential impact

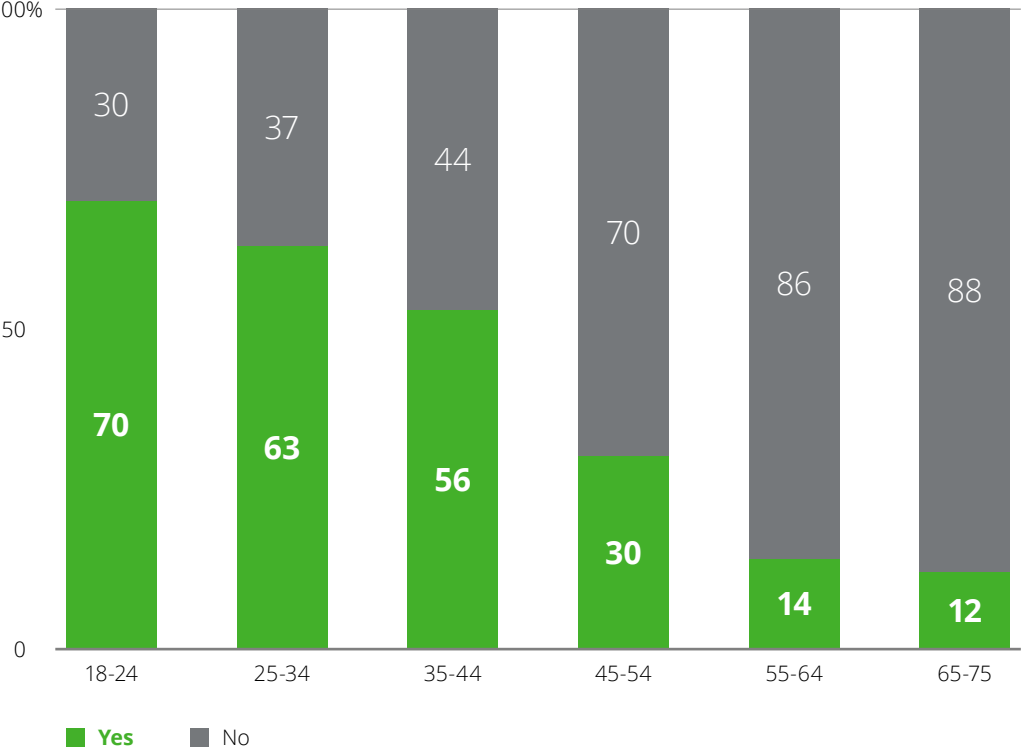


# The health paradox

**Graph 9: Perceptions of smartphone overuse (by gender)**  
“Overall, do you think you use your mobilephone too much, or not?” (%)

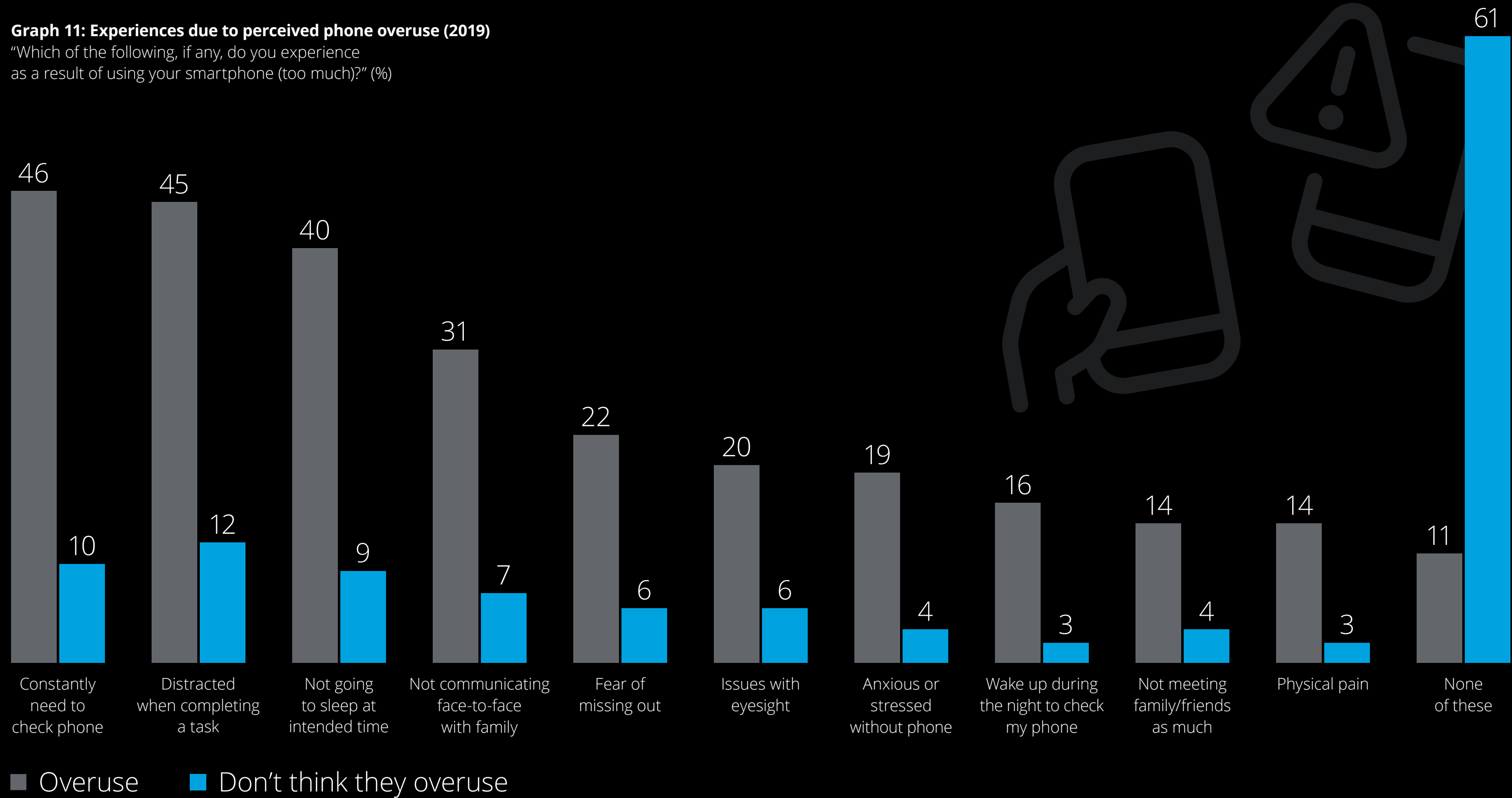


**Graph 10: Perceptions of smartphone overuse (by age)**  
“Overall, do you think you use your mobile phone too much, or not?” (%)



**Graph 11: Experiences due to perceived phone overuse (2019)**

“Which of the following, if any, do you experience as a result of using your smartphone (too much)?” (%)



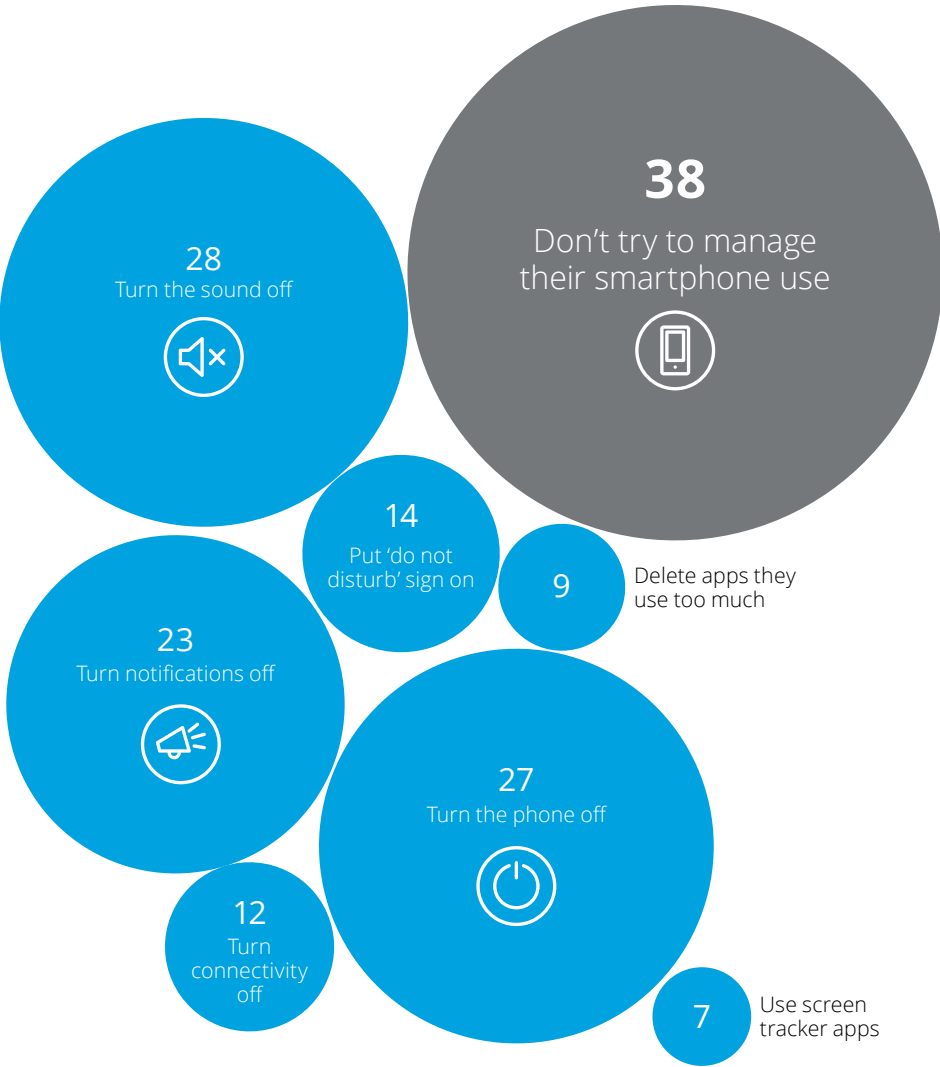
# The health paradox

## Controlling our impulses

Despite both positive and negative impacts of our burgeoning reliance on our phones, there is a growing need to withdraw with 60% of Australians attempting to limit use this year, up from 38% last year. We are diversifying our approaches to digital detoxes, from turning the sound off (28%) for a period to taking phone-free holidays.

These retreats have shifted from being a niche holiday targeted at the elite as a way to de-stress, to now appealing more broadly to families looking to build skills and reconnect without devices<sup>6</sup>. For those wanting to escape for one night only, a number of restaurants across Australia, the UK and Europe have taken up the practice of banning phones at dinner, encouraging diners to reengage with the art of conversation and enjoy their food without a filter. Harvard University, via its research centre Project Zero, has even launched a new initiative called the ‘Family Dinner Project’ to equip families with conversations starters, games and meal ideas to connect across the dinner table<sup>7</sup>.

**Figure 2: Ways to limit smartphone use (2019)**  
“How, if at all, do you try to manage your smartphone usage?” (%)



## Incentivising digital discipline

While negative reinforcement – such as banning phones – is one way to limit usage, a number of organisations are taking a more positive approach with incentive programs to encourage and reward customers for digital discipline. You can now earn Qantas Frequent Flyer points for healthy sleep practices, with Qantas Health Insurance rewarding users of its app for not engaging with their phones before bedtime or during the night<sup>8</sup>. A number of studies have also shown that people (particularly teenagers and young adults) are open to using apps that limit phone access while driving if there are incentives associated with it<sup>9</sup>. There is an opportunity for insurers to capitalise on this by providing incentive programs to offset accident claims. Employers can also jump on this bandwagon and incentivise less screen time, to raise productivity among the workforce and promote greater engagement amongst teams.

# A new privacy frontier

Do our smartphones know too much about us? Many Australians think they do – but far fewer are restricting how much information they share with their devices. As we become more reliant on our mobiles, privacy will become an even greater feature of the next mobile decade.



# A new privacy frontier

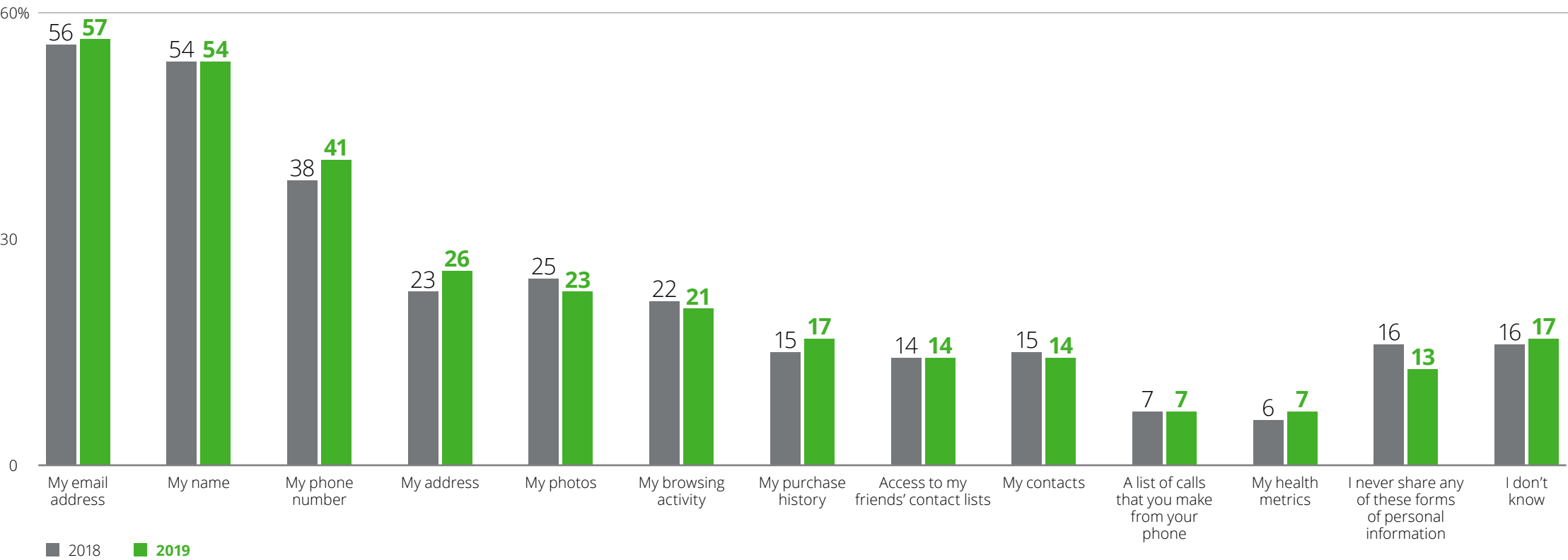
## In mobile we trust

As mobile technologies evolve to provide increasing functionality, consumers have become more reliant on mobile devices to undertake day-to-day activities. This has pushed further development of innovative security and privacy features to protect the increasing personal data being shared online.

Deloitte’s 2019 Privacy Index found 65% of consumers cite trust as their number one consideration when granting an app permission to access personal information<sup>1</sup>. However, only 13% of respondents did not share personal information, such as their address, photos and health metrics, with companies they interact with online. This figure has continued to decrease in the last two years, from 18% in 2017. The vast majority of consumers, despite being increasingly aware that companies use personal data, continue to share traditionally private information.

**Graph 12: Sharing of personal information (2018–19)**

“Thinking about companies which you may interact with online (such as Facebook, online retailers), as far as you are aware, which, if any, of the following types of information do you already share with them?” (%)



# A new privacy frontier

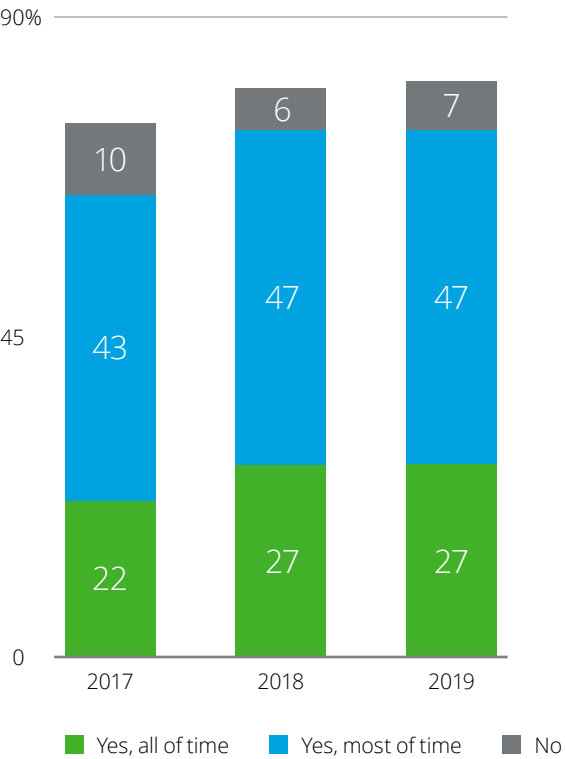
## Access denied

Yet, consumers are also taking stronger actions to prevent the use of their personal data. According to Deloitte's 2019 Privacy Index, 52% of respondents have used privacy enhancing applications and 89% have at some point denied an app access to location, photos, contacts, or other mobile phone features (e.g. cameras)<sup>1</sup>. This contrasts with the attitude of many Chinese citizens, who have embraced a range of private and government systems that gather personal records of digital and offline behaviour as an input for social credit systems<sup>2</sup>.

While this approach drastically differs from the current Australian model, Chinese citizens consider the trade-off of personal privacy and constant surveillance to be worth the added trust that will be generated in society. As Australia moves towards an open data future, consumers' consciousness around what they are comfortable sharing, how consent is given, and the value exchange for doing so will need to sharpen.

**Graph 13: Sharing data with third parties (2017-19)**

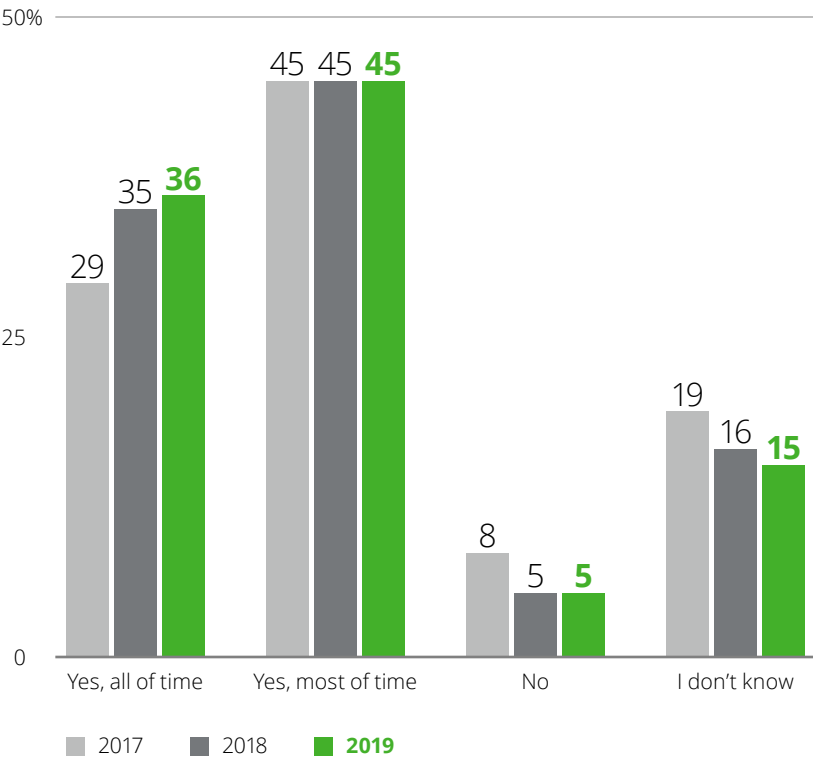
"Do you believe that the companies you interact with online share your personal data with third parties\*?" (%)



\*e.g. social networks sharing data with retailers

**Graph 14: Companies online using your data (2017-19)**

"Do you believe that the companies you interact with online use your personal data?" (%)<sup>†</sup>



<sup>†</sup>Note: Percentages have been rounded to the nearest whole number

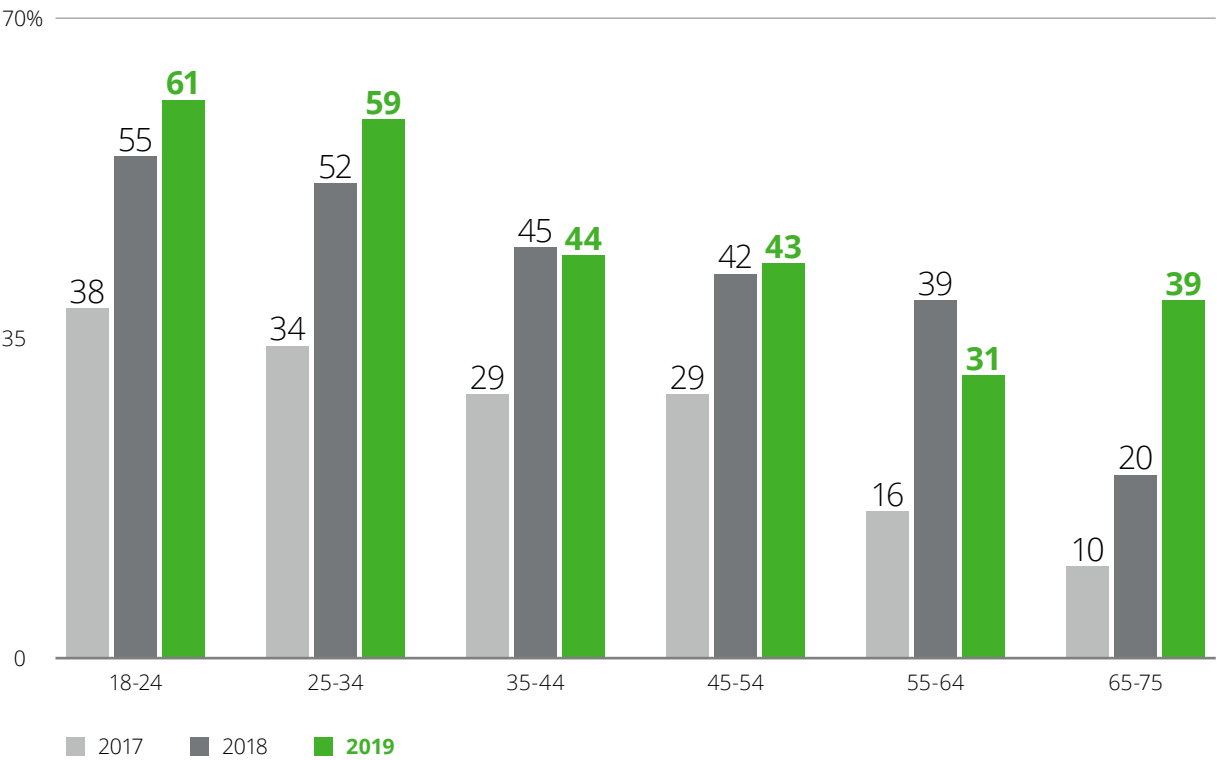


# A new privacy frontier

## Biometrics on the rise

While data privacy threats take various forms, mobile devices continue to evolve their security features to zero in on a person's identity. Less invasive methods, such as pin or password authentication, have been the prominent form of identification in the last few years, but the use of fingerprint and facial recognition methods have significantly increased. Twelve percent of Australians are now using facial recognition to unlock their phones and 40% use fingerprints. The use of fingerprints to authorise purchases and money transfers is also increasing and is highest in the 18-24 and 25-34 age brackets, growing to 23% and 25% respectively over the last two years. As more of our personal lives are captured in our mobile phones, the more we care about keeping them private.

**Graph 15: Use of fingerprints for payments (2017-19)**  
"Do you use fingerprint recognition to authorise payments/purchases?" (%)



# From mobile to mobility

Autonomous vehicles are set to be the next major step in connectivity, providing a whole new way to travel. Already, connected cars are giving us a taste of this future, but are Australians interested?



# From mobile to mobility

As we approach the 2020s, we can anticipate even more change, with significant investment in autonomous vehicles and connected cars indicating a vastly different experience of mobility to come. However, the 2019 Deloitte Global Automotive Consumer Survey revealed consumers' appetite for self-driving vehicles lags the automotive industry's pace of investment in advanced vehicle technology, largely due to concerns over safety and value<sup>1</sup>.

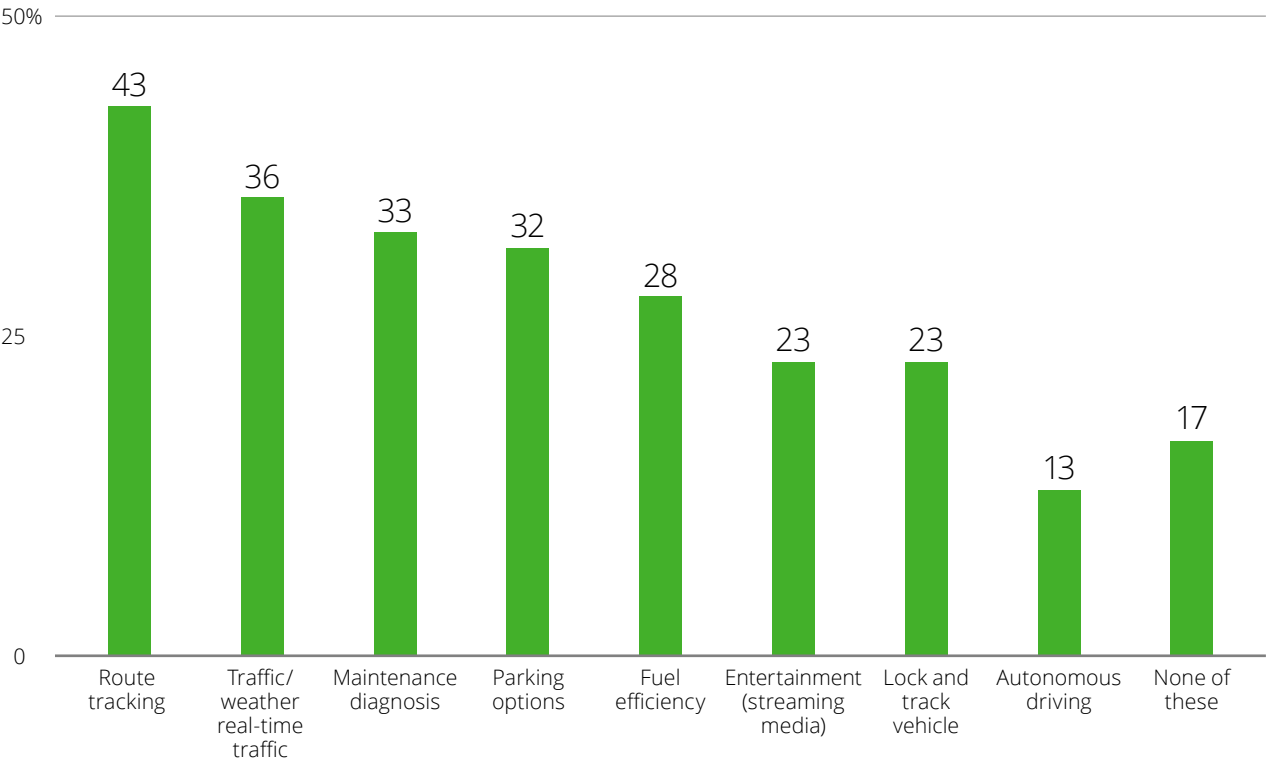
When asked about the most valuable features in upcoming connected cars, those features already ingrained and relied on in our daily lives, such as route tracking (43%) and real-time traffic updates (36%), were favoured by the most number of respondents. This was followed by automated vehicle maintenance diagnosis (33%) and parking availability updates (32%).

Overall, 18-24 year olds were more inclined to pay more for connected car features – particularly real-time traffic and weather updates on screen – than any other age group, with up to 4% willing to pay more than \$60 per month. However, the appetite to pay a premium is still relatively low overall, with two thirds of Australians unwilling to pay for any additional connected features.

Most new vehicles sold today already have degrees of automation, which is likely to incrementally increase as the numerous automated vehicle trials in Australia deliver successful results<sup>2</sup>. Paired with the roll out of 5G, consumer concerns around value and safety will gradually be assuaged.

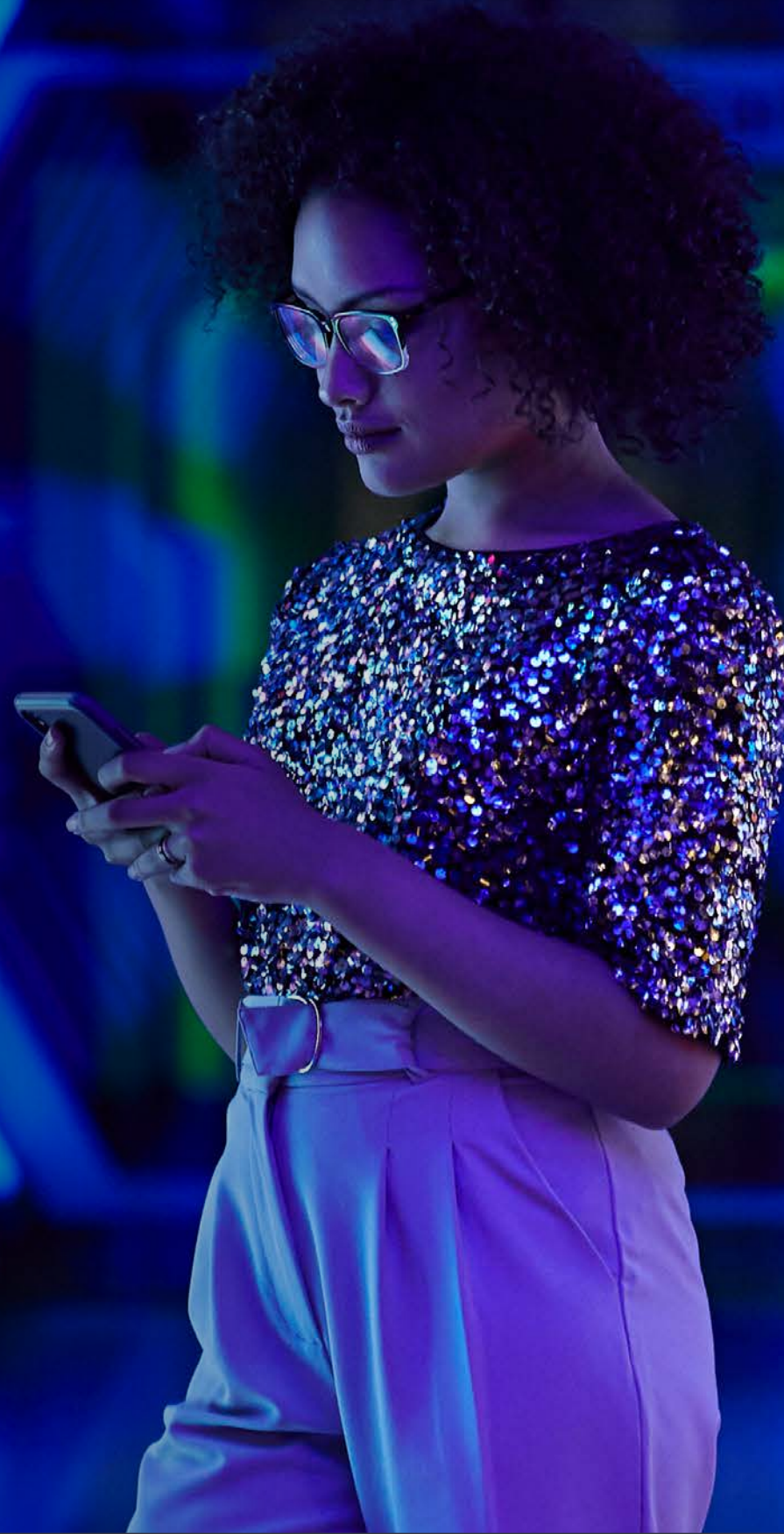
**Graph 16: Most valuable connected car feature (2019)**

“Which of these would you find of greatest value if your car would connect to the Internet?” (%)



# What's next: the unknown

'The Smart Decade' has fundamentally transformed our lives, enabling us to become unwired in our daily activities through the use of our unrivalled companion – the smartphone. But the next substantial shift remains unknown.



# What's next: the unknown

Will voice become a true contender to mobile in ecommerce, or is it just a flash in the pan? With Amazon's strength in commerce and biometrics, could a new threat be emerging? Will 5G change our behaviours incrementally or become a revolutionary presence in our lives? The real-time possibilities of 5G present an opportunity for VR as a new form of entertainment — but will it just be more of the same?

And will the mobile phone be the primary device for experiencing AR, or will glasses untether us from our phones and allow us to reconnect with the real world?

The answers to these questions could lead us down disparate paths and very different mobile futures. But through our research and conversations with major players across the mobile ecosystem, there are several views on what the next decade may hold for Australian consumers.

## **Smartphone evolution**

We're already witnessing the innovation that will see smartphones continue to be central to our lives in the near term. Budget smartphones are shaking up the market, adding competition to the sector. We're seeing the evolution of smartphone forms with foldable phones in development, which allow access to a larger, tablet-like display on unfolding.

Other innovation is hitting the market too, such as tri and quad cameras, with image quality to rival DSLR cameras, becoming integrated into new handsets. Niche devices are being launched for gaming, while improvement in battery life will see us stay connected for longer.

While these developments all address consumer needs across price, quality and speed, their ability to cut through depends on how compelling the use case is.

Already, consumers are keeping their smartphones for longer. They will need to be convinced these innovations – and a new handset to go with them – is worth the cost.

## **5G-enabled future**

Fast, faster, fastest – until today, mobile's history has been about speed. As 5G rolls out, we're starting to see Australians value different dimensions of connectivity, such as reliability and latency. And this will require operators, handset manufacturers and other parts of the ecosystem to get the consumer proposition right – and continue to evolve it.



# What's next: the unknown

5G will not be an overnight sensation. Instead, Australians will need to 'feel' the difference between 5G and their current LTE connectivity, whether the impact is on their experience or wallets. This could include more innovation on 5G plans, such as 'try before you buy' options, and advances in 5G handsets, providing better battery life, smoother transitions between networks, and cheaper cost. A key milestone will be Apple releasing 5G-supported handsets, providing Australia's 9 million iPhone users with access to the network when they next upgrade.

Of course, the biggest advance will need to be use cases for 5G. Already, the potential for mobile gaming and VR streaming is there but it still needs to further evolve.

## **Beyond the device**

Today's consumer world revolves around smartphones and we don't see this changing any time soon. They will still be the primary mode through which consumers experience connectivity, potentially processing petabytes of data with a petabyte of storage before the end of the 2020s.

Despite this power, we can expect to see some of the task load of the smartphone shift into other domains, like wearables and the smart home, freeing our eyes from screen time in contexts where it is convenient.

## **Privacy vs. convenience**

Already, mobile is starting to take on the role of our wallets, but the next decade will see commerce become even more effortless. The conditioning consumers have from using biometrics and 'tap and go' payments on smartphones will become pervasive in all forms of commerce – expect to pay with your face at a counter in the near future.

The implications of mobile convenience will be far reaching. The counterpoint? The right to be forgotten, the right to be anonymous and increasing social awareness of health, conduct and security issues will also change the way consumers experience mobile.

To see how these 'unknowns' unfold, stay tuned for our 2020 TMT Predictions and our 2020 Mobile Consumer Survey next year.



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