



Technology, Media and Telecommunications Predictions 2021 Australian edition

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Foreword

Deloitte Australia is pleased to share this summary of our 2021 Technology, Media and Telecommunications Predictions report, which provides insights into ‘the smart future’: the technologies and trends that offer growth and transformation opportunities across the business landscape.

In 2021, we take on diverse topics from women’s sport to cloud adoption, telehealth to virtual reality. All nine of our topics this year were shaped to some extent by the global pandemic, which in many cases significantly accelerated change, and also threw in a few interesting curveballs.

But will the post-pandemic world see change, disruption, and innovation decelerate from current levels? Or will the acceleration induced by COVID-19 persist for the long term — perhaps permanently?

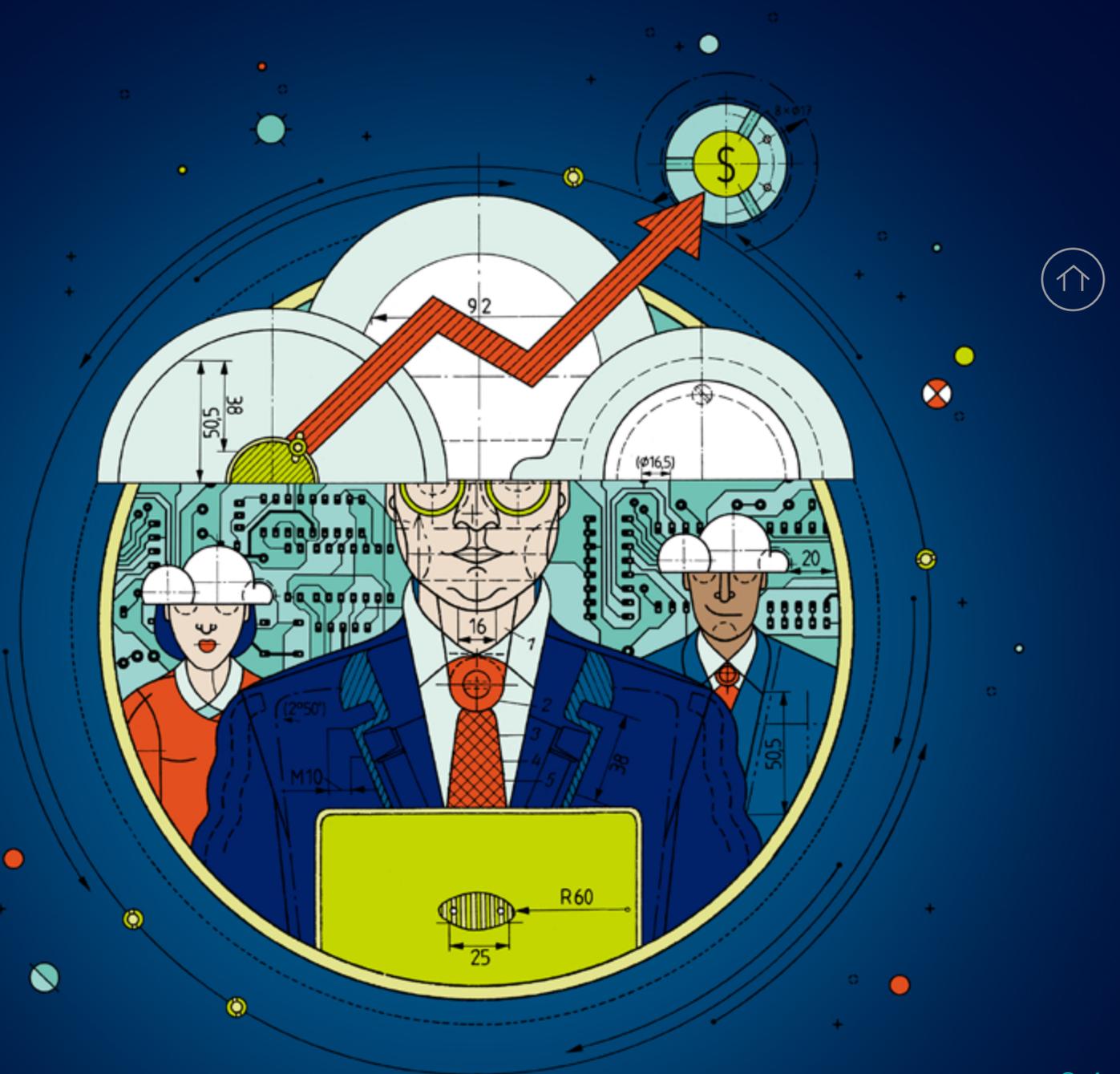
Our experts bring a fresh perspective on how Australia is tracking across the nine topics and the changes, challenges, and opportunities we can expect in 2021 and beyond.



The cloud migration forecast

Cloudy with a chance of clouds

Zack Levy, Dan Newman and Jeremy Smith



Australia is at the forefront of cloud adoption and transformation driven by cloud technologies. Big drivers of this move to the cloud have been:

- The public sector's increased confidence following hyperscalers' – a term loosely referring to Amazon Web Services (AWS), Google and Microsoft – investments in Information Security Registered Assessor Program (IRAP) compliance¹
- The growing business imperative to improve advanced analytics capabilities, which require cloud environments and edge computing capabilities
- The increased commitment from hyperscalers in the region to incentivise investment, including the announcement of a second Amazon Web Services (AWS) region in Australia.²

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The cloud adoption journey

In line with our global prediction, locally we predict that cloud adoption in Australia will continue to grow in 2021 as companies expand on early initial investments in cloud – with the total cloud market (across infrastructure, platform and applications) set to double in value by 2025.³ We believe that federal, state and local government and public sector agencies will form a larger proportion of this growth.

The adoption and utilisation of cloud native services is moving from being a 'nice to have' to a 'ticket to play' for many organisations, as expectations and consumer trends, such as personalisation and omni-channel service, along with operational efficiencies, are increasingly demanded and relevant to new sectors. The organisations already on this journey are learning how to differentiate through cloud capability and will continue to experiment.

Australia has been early to the cloud adoption journey with a number of sectors already making the investments required to move to cloud-based infrastructure and software as a service (IaaS and SaaS). Currently 46% of organisations categorise themselves as having a 'cloud-first' policy when considering new investments.⁴

We predict that within the next five years the share of cloud-first organisations will be up to 75%,⁵ with increased adoption in public sector key to this new growth.

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Cloud in government

Within government in Australia, the adoption of cloud technology is forecast to increase significantly in the coming years, with the recent drought, bushfire and COVID-19 shocks accelerating this trend.⁶ In a 2020 Deloitte report, *Adopting cloud technology in government*, 24 senior government individuals were surveyed and 76% of respondents agreed that the requirement for cloud had increased during 2020 with recent world events being at the forefront of decision making.⁷ Furthermore, government policy has set a clear direction for the adoption of cloud, including strategies at both federal and state levels.

During the pandemic, cloud enabled the public sector to respond to events more quickly and efficiently. Three examples of this were: enabling the rapid transition of learning to online platforms; supporting significant increases in service volumes and capacity requirements; and the mapping of requirements in state-based 'pandemic centres'.⁸ These illustrate some of the benefits cloud technology can bring.



Benefits of cloud

The rapid cloud adoption experienced in 2020 as a result of the global pandemic will give organisations greater power over their data. Businesses wanting to harness the full benefits of a cloud transformation will need to commit to continued development and experimentation by leveraging cloud services such as analytics, artificial intelligence (AI), machine learning, and automation to become data-driven organisations. It is estimated that 38% of organisations in Australia are currently investing substantially in AI (>\$10 million).⁹

Australia's current AI investments are focused on reducing headcount (29% of AI projects in Australia),¹⁰ however we believe this will rapidly shift towards enhancing decision making and augmenting more creative, value-add activities from employees over the coming years.

We predict that more than 60% of organisations will be investing heavily (>\$10 million) in AI within the next three years.

Survey findings in the 2020 Deloitte Access Economic [Demystifying Data](#) report commissioned by AWS found that 60% of surveyed businesses had basic or beginner data maturity levels, with commonly cited barriers including data quality (17%), access (15%), and tools and technology (11%). Those organisations that have made the shift to the cloud will be better positioned to break down these barriers and start to realise the full potential of their data in the form of improved productivity, increased sales and revenue and frictionless operations.

Data modelling in the Deloitte Access Economics report showed that a one-point increase in businesses' data maturity scores is associated with additional revenue — \$1.5 million in Australia, and \$1.6 million in New Zealand. This revenue could allow businesses to hire 16 full-time employees in Australia and 22 in New Zealand.

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THE BOTTOM LINE

Australia took to cloud adoption early but is still experiencing growth in some sectors. The majority of organisations that have adopted cloud are now turning their attention to maximising its benefits through the application of cloud native services. We expect the majority of organisations that have adopted cloud to be investing in experimentation on the cloud edge to find competitive advantage.



5G is not hazardous to your health

Busting the radiation risk myth

Amrit Singh and Jacob Herman



TMT Predictions 5G is not hazardous to your health

There are usually two main concerns when it comes to potential health risks associated with 5G. The most common anxiety is that 5G causes cancer. The second fear is that 5G-emitted radiation weakens the immune system, making us more vulnerable to COVID-19. There is extensive scientific evidence that disproves these concerns and shows that mobile phone technologies have no adverse health impacts. To learn more about this research and the science behind 5G, we recommend reading our [global TMT Predictions Report](#). The Australian version of this prediction focuses specifically on the Australian implications of these concerns.

The rollout of 5G in Australia is rapidly picking up pace, with Telstra expecting to have 5G coverage for 75% of the Australian population by the end of FY21,¹ and other telcos following with similar announcements. However, as with previous generations of mobile technology, false health concerns remain a worry for many Australians. However, in 2021, we predict the proportion of Australians who believe there are health risks associated with 5G, or admit they don't know about its effects, will fall below 20% (down from 34% in 2020).²

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We predict this number will fall below 20% by the end of 2021, driven primarily by a significant increase in public education campaigns from network operators and the Australian Government.

Since before the launch of 5G, network operators have attempted to quash potential health concerns through public information campaigns, however this has recently been jeopardised by a number of conspiracy theories linking 5G to the spread of COVID-19. This issue is not isolated to Australia, with countries such as Austria and Ireland seeing health concern rates as high as 51% and 36% respectively.³ The issue has escalated to such an extreme in Europe,⁴ and even as close to home as New Zealand,⁵ that mobile towers have become victims of arson attacks from conspiracy theorists.

Campaigns and communication are key

To combat this misinformation, we expect to see a significant increase in public information campaigns from the major telcos throughout 2021. This will likely include both proactive and reactive information campaigns as well as real-life tests, proving the low rates of electromagnetic energy (EME) radiation associated with 5G connectivity is many times lower than the rates that damage DNA. To be successful, it is critical that these campaigns are designed for all user demographics, not just those with a science background. Additionally, misinformation and negative headlines need to be met with accurate information of a similar calibre, in the same channels and using similar language.

Campaigns run by telcos will be supplemented by initiatives led by the Australian Government, who in December 2019 committed \$9 million in funding to address misinformation about the health impact of 5G through public education campaigns.⁶ These campaigns will likely draw upon the safety guidance from the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). Again, it is critical that they don't simply refer to a series of complex technical documents but instead communicate the information in a way that is simple for all Australians to understand.



We do not expect health concerns to have a significant impact on the adoption of 5G in Australia; rather the rate of adoption of 5G in 2021 will be driven by consumer device upgrade timeframes, 5G plan pricing by telcos and broader enterprise adoption of 5G.

Additionally, in its response to the recent Standing Committee inquiry into 5G, the Government supported a recommendation to work with the Australian Communications and Media Authority (ACMA) to develop an integrated and comprehensive campaign to address public concerns, which will form part of the enhanced EME Program and will be coordinated by the Communications portfolio.⁷

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The 5G adoption drivers

Device purchasing and upgrades will be a primary driver behind 5G adoption. The launch of Apple's 2020 5G compatible flagship devices removed one of the final hardware barriers to 5G adoption. Australians love Apple devices, with the latest sales figures showing that Apple make up almost half of recent smartphone sales in Australia.⁸ However, up until this launch, Apple buyers have been unable to purchase a 5G compatible device. Now, with the entire range of newly launched Apple iPhone models compatible with 5G, consumers have no choice but to move onto a 5G compatible smartphone unless they buy a previous generation handset.

However, given low consumer confidence and an uncertain economic future, which has already seen device sales fall 15% in the last quarter⁹, we're not expecting to see an instant surge in device purchases. This is compounded by the fact that Australians are holding onto their mobile devices longer, with 81% using a phone that is more than one year old, compared to 76% in 2018.¹⁰ To combat this, we expect networks to push trade-in and upgrade programs to encourage Australians to adopt the latest technology. We also expect to see an increase in the range of sub-\$500 5G devices available from a range of manufacturers, which opens segments of the market that have not previously had a 5G offering.

We foresee these offerings may be tempting for consumers looking for the latest technology, but who remain worried about spending in uncertain times.

Continued inclusion of 5G in plans for little or no additional cost combined with the evolution of the consumer value proposition will help to accelerate 5G adoption in 2021. A range of different approaches have been tested in market, ranging from a \$10 monthly fee, to free inclusion for existing plans. We expect most telcos will continue to include 5G access in plans above a certain price point, which will support stronger adoption, as 56% of the population show a lack of interest to pay any additional amount on top of their current mobile plan for 5G access.¹¹

Enterprise adoption of 5G is likely to accelerate in 2021, supported by new use cases and a better value proposition than for the typical consumer. Enterprises are not swayed by unsupported health concerns and as COVID-19 restrictions ease, investment will recover, and we expect many businesses will look to the potential competitive advantage that 5G can bring. This will likely be buoyed by the Australian Government's recent \$30 million investment in 5G, which includes \$22 million for investing in commercial 5G trials in key sectors such as agriculture, mining, logistics and manufacturing.¹²



THE BOTTOM LINE

There will inevitably be a gradual adoption of 5G in Australia, however telcos will need to play an active role if they want to accelerate this with consumers and overcome any hesitation from health concerns.

They should look to the broader ecosystem to help tackle 5G misinformation and ensure accurate information is being communicated to the public. This would mean coordinating the efforts of device manufacturers such as Apple and Samsung, as well as 5G component suppliers like Ericsson and LG Innotek. Co-developing and co-funding public campaigns may allow for greater impact in a shorter period of time. Additionally, establishing partnerships with universities

or other reputable organisations like the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to conduct evidence-based research may provide added credibility to the information being circulated to the public. Regardless of the approach taken, education and the expected increase in 5G public use will be critical to alleviating public health concerns associated with the technology.

As well as tackling misinformation, trade-in and upgrade programs, potentially run in conjunction with device manufacturers, will be a key method to accelerate 5G device purchasing in Australia, particularly when promoted in combination with the significant speed increases 5G provides.



Rising from decades of instrumentation, automation, and connectivity, the 'intelligent edge' is maturing into a revolutionary set of capabilities that promises significant potential for consumers, enterprises and government in Australia.

What is the intelligent edge?

The intelligent edge is the combination of advanced wireless connectivity, compact processing power, and AI located near devices that use and generate data. It represents an evolution and convergence of trends that will boost efficiency in industrial monitoring, automated manufacturing, utility management, and telecommunications, amplified by cloud computing, data analytics, and AI.

The intelligent edge allows for rapid data analysis and response, enabling that data to be acted on directly or filtered to push only the most important bits to the core. Today, roughly 20% of enterprise data is created and processed outside of traditional centralised data centres or cloud. By 2025, this number is likely to reach 75%.¹ Such explosive growth in data and processing needs require innovative solutions and practices that the intelligent edge promises to deliver.

Addressing the challenges

However, executives must be prepared to address the challenges this evolution entails. Interoperability standards and best practices are still being defined and published. Security issues will become more complex in this architecture, driven by the need to process outside the enterprise security parameter. The complex ecosystem required to allow for this convergence will require more coordination and integration than ever before, as it combines solutions from telco providers, hyperscalers and technology providers.

The Australian market for the intelligent edge will be around \$590 million and will be mainly driven by telcos and hyperscalers.

Advancing Australia's edge

Despite significant impact due to COVID-19 during 2020, Australia has continued its leadership in the rollout of 5G, with Telstra and Optus announcing a 5G standalone core and aggressive plans to achieve high levels of population coverage by 2021.^{2,3} Complementing this new advanced connectivity technology, as stated in our latest global TMT Predictions, mobile network operators and hyperscalers are taking the lead and jointly working together to bring intelligent edge capabilities closer to Australian consumers and enterprises. Leading this trend, AWS has already made its Outpost™ solution available in Australia⁴ to enable enterprises to enhance their cloud transformation experience, with other edge solutions likely on the way.

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Hyperscalers and telcos driving investment

In 2021, we predict that the initial set of investments in edge computing will be driven by telcos and hyperscalers. Firstly, telcos will leverage intelligent edge to increase their own efficiencies with real-time automation in operations, upskill their workforce with cloud and edge capabilities, and monetise their currently under-utilised assets, such as towers, buildings and central offices. This will allow the operators to be more agile, increase overall capacity in their networks and gain some additional revenue by leveraging their new 5G networks. But in order to do this, they will need to invest in the refurbishment of those assets and prepare their networks to provide edge computing services to the end customers. In 2021, we predict that hyperscalers will also start to competitively position their enterprise offerings, built on their unique edge and AI capability using their hybrid cloud platforms, while leveraging their global scale and innovation to capture a share of this market.

Telco providers will start by marketing use cases requiring low latency for the consumer space (most likely gaming-on-the-go) and hyperscalers will focus on enterprises.

InfraCos shaping the market

InfraCos (companies that manage the passive components of a telco network such as fibre, exchanges or towers) will also start to play an active role in shaping this market. InfraCos will try to maximise the space utilisation in their strategically located real estate assets by preparing them to host computing and networking hardware. Telco providers will take advantage of this by renting this space located close to their customers to decrease their CAPEX burden and provide low latency services. In turn, InfraCos will use this to diversify their portfolios, where edge computing can represent a new revenue stream.⁶ For example, Telstra's InfraCo Fixed announced it will repurpose 650 of its 1500 portfolio of exchanges to provide edge computing services.⁷ This trend will continue to fuel the growth of the intelligent edge.

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Making intelligent edge real for consumers and enterprises

We predict telco providers will start focusing on the consumer space and providing use cases requiring low latency. Gaming-on-the-go will possibly be one of the first use cases to take advantage of availability of widespread 5G coverage by capitalising on the growing appetite in this space.⁸ This will also serve as a platform to test and experiment more complex and technically challenging features relevant to the mid-market businesses and enterprises. However, for most of the hyperscalers, the focus will be on making intelligent edge real for enterprises. They will selectively target enterprises and sectors that follow a cloud-first strategy and are more willing to experiment to increase synergies from their investments by prototyping and rolling out intelligent edge solutions. Some of these use cases will be delivered in partnership with telco providers with specific joint solutions to address the needs of enterprises bringing a holistic solution to their digitisation journey.^{9, 10}

We predict that at least five enterprises across agriculture, banking, logistics and retail will start trialling edge computing in 2021.



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We believe that in 2021 enterprises will start trialling intelligent edge use cases by working collaboratively with the hyperscalers and telcos. These will most likely involve smarter inventory management, remote operations, real-time incident response or video surveillance. The specific needs and priorities and the approach to intelligent edge will be driven by a range of factors and desired strategic outcomes such as revenue growth, cost optimisation, security or customer experience. Our prediction is that the main industries to embark on such a journey will be agriculture, banking, logistics and retail.

Demand is also growing from use case-driven solutions such as autonomous vehicles and mobile robotics that require low-latency, high-redundancy capabilities, as well as from manufacturing and supply chains seeking greater transparency and resilience in a post-COVID-19 world.

THE BOTTOM LINE

Australian enterprises can lead the way in leveraging the potential of the intelligent edge. In addition to the presence of the main global hyperscalers in the region, Australia is in the first wave of countries adopting 5G, has a vibrant landscape of technology and system integration providers and a culture of early adoption. Therefore, we believe that Australian enterprises can start experimenting with the convergence of these technologies to take their digital transformation journeys to an even higher level.

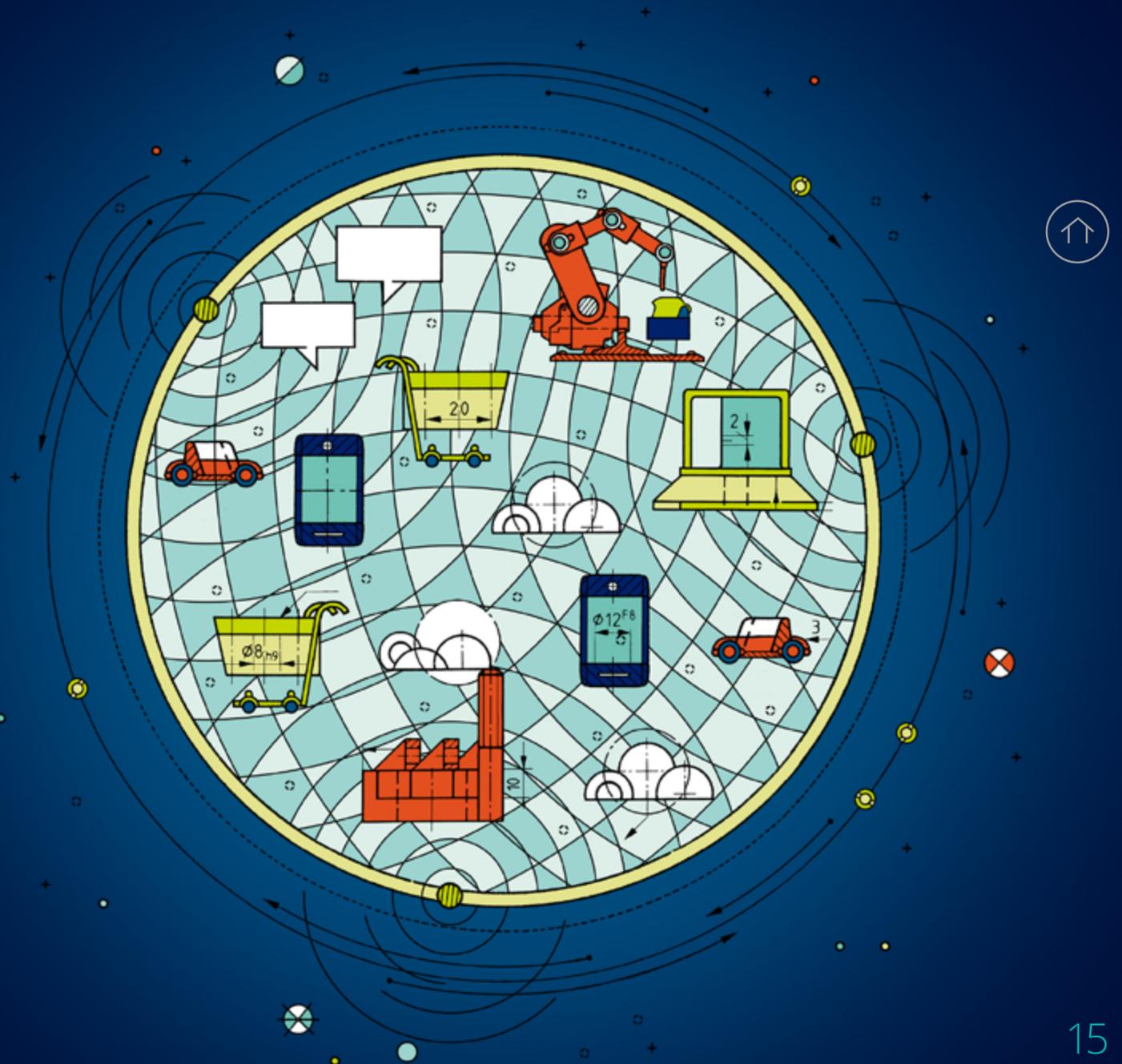
Executives should start with a clear definition of their needs and priorities and how the intelligent edge may accelerate the transformation of their business. They should understand the potential use cases of this technology and test its possibilities through experimentation, with a clear path to results and strategic value. Most importantly, they should understand that 'edge' and 'intelligence' are components of a more holistic solution for real-time data processing and higher levels of automation, driving operational efficiencies, improvement at scale and supporting enterprises to become more flexible and adaptive.



The next-generation radio access network

Open RANs are the future of mobile networks

Karl Linhart, Pedro Sanguinho and Maurício Pereira



Mobile network operators (MNOs) are known for their ability to build and operate massive, high-performance wireless networks. They rely on highly specialised radio access and networking equipment with tightly integrated proprietary software to deliver the cellular services that connect our mobile phones, tablets, computers, and other devices. But high costs, limited flexibility and constrained vendor choice are prompting MNOs to shift away from radio access network (RAN) systems towards newer Open RAN technology.^{1,2}

Open RAN technology gives the ability to pick and mix software and hardware from multiple vendors to allow network customisation; this increased flexibility over traditional RAN architectures aims to provide OPEX and CAPEX savings while also fostering innovation.

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Global politics leading to Open RAN adoption

The global political landscape around 5G deployments, with sanctions being imposed against Chinese vendors, including in Australia, has been contributing to Open RAN adoption. Policy makers and governments have been financially backing Open RAN and creating opportunities for accelerating testing and the adoption of the new RAN architecture. The UK is an example of where the government has banned mobile providers from buying new 5G equipment from Chinese vendors. As a result, Vodafone UK has announced the intention to swap a large part of Huawei equipment for Open RAN-based technology.³

Globally, mobile operators are looking to avoid a single vendor dependency that limits their capability to differentiate themselves from their competition. Having a more virtualised, flexible and open network will allow MNOs to on-board new software from innovative start-ups at a faster time-to-market.

Open RAN cost efficiencies

One of the most compelling value propositions of Open RAN architectures is its potential to lower the total cost of ownership of RAN networks.

Open RAN solutions are based on general-purpose, vendor-neutral hardware, which can be expected to lead to reductions in CAPEX. As this software-defined technology is less hardware dependent, networks are more flexible and easier to upgrade, maintain and operate, which should mean increased OPEX efficiencies.

Cost savings like these should allow Open RAN to be positioned as a viable solution for providing wireless broadband in less populated areas that are currently not financially attractive enough to justify an investment of a traditional RAN solution.

In Australia, with a number of new operators being awarded mmWave spectrum band licences,⁴ we expect to see increased interest from these companies in exploring fixed wireless access and 5G solutions through Open RAN technology particularly in remote areas where traditional RAN implementations have proven costly compared to the potential returns.



We predict that in the next three years we will see the first live deployments of Open RAN in Australia with 30% of these being from new MNO entrants.

Even though we will see new operators moving to Open RAN in Australia, we expect existing MNOs to remain using traditional vendors for their RANs for the next three years. This is due to them being forced to move faster to replace Chinese vendor equipment in their 5G and 4G networks because of the ban on the use of Chinese vendor equipment in 5G networks and their new vendor contract commitments.^{5, 6, 7}

Open RAN encourages innovation

Another benefit of Open RAN is that it drives faster innovation as it relies on a collaborative and open development environment ecosystem of new disruptive players and start-ups. For example, instead of having to replace network gear to introduce new features and functions, MNOs using Open RAN can use software updates on white-box hardware to effect change. With vendor interoperability there is no need to send out technicians for custom onsite integrations, therefore reducing the time, effort, and cost of launching new products and services.

We believe 5G private networks will trial new Open RAN technology to drive innovation within their operating environments with as many as 40% of all trials this year using this technology.

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Open RAN challenges

Despite its benefits, Open RAN brings some concerns, such as scalability, multi-vendor interoperability or initial investment costs for brownfield operators.

With the introduction of new architecture, some operators have expressed concerns over the lack of accountability for their future networks. For example, where there is currently a single vendor responsible for secure performance and lifecycle management, in an Open RAN architecture there will potentially be many parties performing these tasks. How responsibility will be assigned will likely sit with the system integrators, which will extend their role traditionally performed just for IT environments to the edge of the radio networks.

THE BOTTOM LINE

Despite initial tests by Optus in 2016 exploring⁸ Open RAN solutions for providing 3G/4G coverage in rural areas, the potential of the new radio network architecture is still to be fully explored in Australia.

It is expected that the inflection point between traditional mobile networks and Open RAN will occur in the next six to eight years globally. We believe major MNOs in Australia will start exploring Open RAN solutions in the next three to five years but with this being driven by the traditional network equipment providers' roadmaps, primarily because they heavily rely on them for full network accountability.

At the other end, new spectrum owners will be willing to drive the adoption of Open RAN solutions aligned with their mmWave deployment plans.

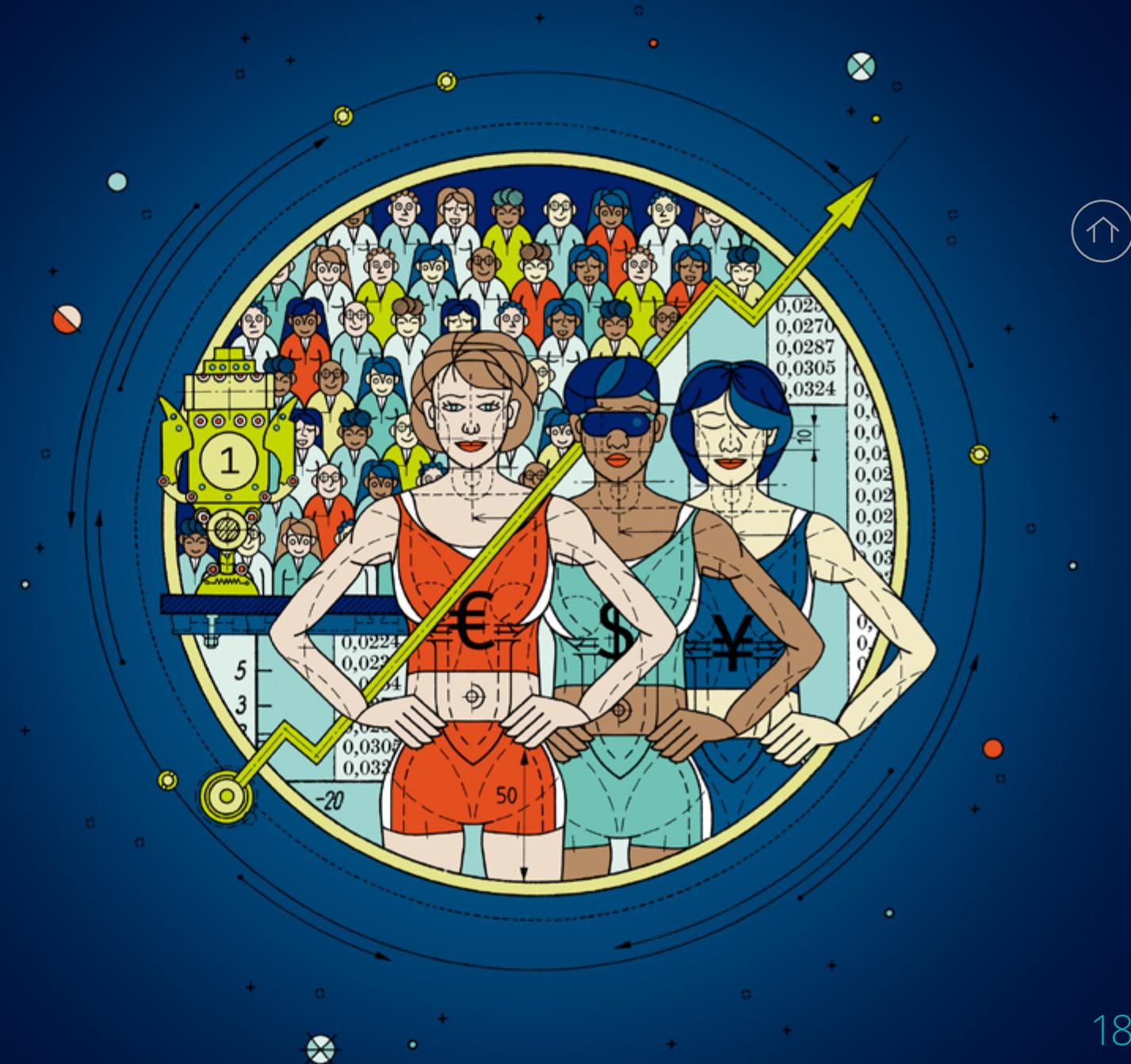
By enabling the adoption of an open marketplace of local innovative technology companies, building the future of RAN will open the door for new industry growth opportunities, contributing to Australia's post-COVID-19 economic recovery.



Women's sports gets down to business

On track for rising monetisation

Peter Corbett and Jeremy Smith



The popularity of women's sport has grown in recent years as both governments and private organisations have invested heavily in increasing the participation rates and the profile of women's sporting content to a mass audience.

These foundations are beginning to pay dividends and women's sporting teams, leagues and events are becoming attractive commercial properties as they professionalise further and generate substantial revenue through media rights, sponsorship and game day ticketing.

Australia is leading the way in this transition, outperforming global markets in its share of broadcast hours and sponsorship spend, alongside a number of successful professional league developments, including the AFL Women's (AFLW), Women's Big Bash League and Netball's Super League, among others.

Women's sports as standalone broadcast rights properties

Revenue from media rights is the bedrock of the sports sector, accounting for 46%¹ of Australia's \$13.5 billion sports industry. This revenue effectively funds many of the competitions, clubs and athletes, so as these broadcast deals grow, so too does the capital required to improve the quality of the content as it is reinvested into the sport.

Women's sports have begun to step out from the shadows of their male counterparts, with the recent AFLW standalone broadcast deal in 2019 adding to the existing list of major standalone women's rights properties, including the Women's National Basketball League (WNBL) and Super Netball. History has shown that the ability to package up these rights as discrete offerings significantly increases the total commercial value of the sport. The broadcast deal for Super Netball's newly constructed competition in 2017 turned a \$2.6 million deficit into a 200k profit for Netball Australia in a single year and spurred an increase in sponsorship income from \$3.9 million to \$12.3 million in the same time period.²

As current rights deals expire over the next four years, we expect to see up to three new major sports sign their first ever standalone deals in Australia with the aim of capitalising on current audience growth.

Globally, the International Cricket Council (ICC) is exploring interest in separate bidders for the women's cricket over the 2023-2031 cycle thanks to the success of the T20 World Cup held in Australia. The event generated a record attendance of 86,000 fans in Melbourne for the final and a 1600% increase in total viewing minutes in Australia compared with the previous tournament. The appointment of Australia and New Zealand as hosts for the 2023 FIFA Women's World Cup is also set to generate unprecedented interest in the sport locally.

A number of existing 'standalone' broadcast deals are also being finalised in 2021 and are expected to propel the commercial growth of women's sports rights. Super Netball is seeking to support an aggressive five-year growth plan with a new rights deal this year, building on the previous deal which saw broadcasters cover production costs and share advertising revenue. They will be leveraging the market-leading double-digit audience growth rate seen in recent years to attract broadcasters seeking to entice people to their networks.



With these new rights deals comes much greater exposure through TV and online broadcasting, further accelerating the rate of interest in women's sport. As of last year, women's sport accounted for approximately 10% of live sports broadcasts in Australia, with a total audience of 5 million (compared with men's sport audience of 13.8 million).³ While comparatively low, this compares favourably with other major markets, where women's sports account for only 4% of live coverage in the US and 7% in the UK.⁵

Australia's success in growing women's sports participation and translating this into 'fandom' across pedigree sports has contributed greatly to these broadcast figures. Thirty-two per cent of AFL players in Australia are women, and 41% of Australians are interested in Women's AFL.⁶ As the most comparable sport in the US, only 1% of American football players are women and only 15% of Americans have stated an interest in watching women's football.

Recent and upcoming broadcast deals are committing a larger proportion of games to live broadcast over free-to-air and pay-TV, along with the long tail of games being made available through streaming properties. This initial growth in broadcast hours is expected to further accelerate audience growth trends, as 48% of people stated they would watch more women's sport if it was accessible on free-to-air TV or free online.⁷ As broadcast deals commit to greater coverage of women's games, we expect a rebalancing of broadcast hours with women's sport to account for up to 25% of total broadcast sporting hours by 2025, accounting for the vast majority of growth in total sports consumption and in new consumers of sport. However, this may be at the expense of men's sporting rights, as many of the major Australian rights holders seek to flatten and even reduce broadcast spending as their existing commercial models and cost bases become less viable.

As of last year, women's sport accounted for approximately 10% of live sports broadcasts in Australia.

Sponsors' paradise

Sponsor investment in leagues, teams and athletes typically follows trends in audience and fan engagement, feeding a strong indirect reinforcement cycle between viewership growth and sponsorship growth across the sporting landscape.

Positive viewership trends across women's sport has provided the foundation for interest from sponsors, but it is the increasing professionalism in competition structures and back-office capabilities that is the critical driver of women's sporting brands' attractiveness as a sponsorship property. The commercial attractiveness of improved broadcast timeslots, enhanced local rivalries, and a strong connection to the nation's grass-roots base was a contributing factor in Netball Australia's decision to terminate the cross-Tasman competition in favour of a domestically-focussed Super League, which led to an immediate 215% increase in sponsorship value. The greater investment in in-house marketing capabilities as major women's leagues and clubs expand from coaching and team support staff to develop and grow their own front-office functions has vastly improved the brand and advertising offerings put to market for sponsors. Improvement in the data used to justify the economic value of sponsorships for women's sporting properties through audience, engagement and ROI measures has given brands greater confidence in committing to major partnerships.



Women's sports are attracting an increasing number of discrete sponsorship partnerships as entities independent from male sports, particularly through their unique brand positioning leaning towards 'inspiring', 'family oriented' and 'socially responsible' as compared with men's properties.⁸

They are also, however, proving to amplify the value of sponsorships when sold in tandem with men's properties, as evidenced by the recent Vodafone Cricket Australia deal. The addition of partner rights to the Australian T20 women's team and Women's Big Bash League (alongside the men's test match series) was a key factor in the total deal value increasing by 20% from the previous sponsor partnership.⁹ The women's branding expanded the demographics that Vodafone accessed through the partnership and the support of innovation in women's sport embodied the organisation's new identity, additionally providing access to female athletes as spokespeople for campaigns.

Women's sport is estimated to generate 8% of the total sponsorship value in Australia,¹⁰ broadly in line with its share of broadcasting hours. In the UK it is estimated that only 1% of corporate investment in sport through sponsorship is directed towards women's sport,¹¹

highlighting the progress Australia has made in developing attractive commercial offerings to brands. The increase in audiences and broadcast reach coupled with the unique brand proposition, improved packaging and negotiation of sponsorship agreements will likely attract new and larger sponsors to women's sport, and we expect that they will account for up

to 20% of total sponsorship value by 2025. Despite the sizable value differential between women's and men's sponsorship markets, we expect that women's properties will drive almost as much growth in total spend over that same period.



THE BOTTOM LINE

The rapid increase in accessibility, broadcast hours and audience reach for women's sport has not only grown the total sports content landscape but is bringing new consumers into the sporting fold – particularly women. This provides a valuable opportunity for brands to use sport as a meaningful way to engage with these segments, particularly through female athletes as they increasingly become universally recognisable, inspirational icons to Australians. Growing visibility of women's sport at the elite level has also grown grassroots participation, presenting a growing opportunity to engage young women through casual, social and competitive exercise and sporting competitions.

The growing professionalism of women's sporting properties has presented a much more compelling and valuable means for brands to engage audiences through sponsorship, advertising and partnering through broadcasters, clubs and leagues. Dedicated commercial arms of women's sporting organisations now provide brands with confidence in their investments and presents a unique opportunity to communicate brand values to mass audiences. This will likely give brands pause for thought in where they invest to reach their target consumers, transitioning some spend from other entertainment properties and men's sport towards the growing and evolving audience of women's sport.

The hyperquantified athlete

Technology, measurement,
and the business of sports

Peter Corbett, Josh Cutter and Lisa May Mosse



From Moneyball to Moreyball, the proliferation of big data in major sports has revolutionised professional sporting organisations.

Today, the majority of major professional sporting teams either have a dedicated analytics capability or are leveraging the use of analytics to influence management decisions across their sport's lifecycle. Whether matching talent to playing style, increasing in-game scoring opportunities or optimising athlete workload to reduce injuries, the thirst for data-driven insights to gain a competitive edge has led to the hyperquantification of athlete performance data.

But where athlete data has traditionally been used to improve performance, a broader set of commercial opportunities is materialising and thereby present athletes, clubs, commercial partners and sponsors with an ecosystem of opportunity to create value, increase fan engagement and directly monetise player data.

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This is spurred by a maturing market and thirst for new capabilities such as AI, machine learning, computer learning and interfaces with broadcast, wagering and consumer organisations.

We also predict that up to half of tier 2 leagues in Australia will create live streaming video content, supported by the integration of reliable data collection tools to unlock fan engagement opportunities.

They will join a growing number of leagues like the Queensland Rugby League (QRL) and the National Premier Leagues (NPL) that have traditionally struggled for oxygen in a crowded Australian sporting marketplace.

Data-feeding fans: The maturing tier 1 data ecosystem in Australia

Major Australian sports know that fans can't get enough of their favourite athletes and teams: the more they know, the more they engage. This is fuelling partnerships with organisations like Champion Data (AFL) and Stats Perform¹ (NRL) that will capture, measure and provide data feeds to commercial partners who in turn then compete for the attention of Australian sport fanatics.

For tier 1 sports, broadcasters are continuously looking to increase the value-add of their offerings to enrich the fan experience, increase engagement and unlock commercial value. Direct monetisation from selling player data to broadcasters ticks all of these boxes. Formula 1 (F1), for example, has integrated in-race driver biometric data to broadcast to partners such as Foxtel's Kayo Sports.

As broadcasters try to improve their value proposition in market by increasing insights into the hyperquantified athlete, we are seeing the creation of a new consumer archetype that wants to go beyond viewership to managing and prospering from that hyperquantification. DraftKings and FanDuel have recently launched operations in Australia to meet the growing demand for fantasy sports, providing additional paths to commercialise Australian athlete data.



Although Australia's wagering market is mature, the burgeoning uptake of fantasy sports is increasing the IQ of everyday sports fans, giving these fans a broader set of insights to call upon when placing their bets. This increased sports IQ has drawn fans towards a more diverse range of wagering products, allowing bookmakers to target new consumer segments via non-traditional markets that were not previously accessible before the emergence of fantasy sports.

Companies such as Sportradar also demonstrate the potential to integrate wagering data with other platforms. Its partnership with the NBL² has extended to include live streaming as well as the monetisation of wagering feeds in international markets. Further opportunity exists for official data partners to offer additional compliance services that track suspicious trading patterns.

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The whitespace in tier 2 sports

The cauldron of competition for the attention of Australian fans has been well documented. Although Australians are sports mad, we don't have enough eyeballs to consume an oversupply of content. It's difficult for fringe tier 1 sports to get clean air on the calendar, let alone a broadcast deal, especially with Foxtel looking to consolidate its content strategy into a more premium sport offering.³ So, how will tier 2 sports like the NPL and QRL look for opportunities to commercialise their products?

Real-time, accessible match data paired with live streaming capability is proving to be the critical enabler that may unlock commercial value and fan engagement opportunities.

We estimate that of the total number of tier 2 sports in Australia, just over half are moving to offer some level of live streaming for fans supported by a live data capture proposition. This maturing of tier 2 and amateur sports will continue to gain momentum in the next 12-18 months.

Primary monetisation opportunities for these leagues will come in the form of advertising against live streaming services and content. However, ancillary opportunities exist when streaming capability is supported by integrating real-time data collection processes and tools. This unlocks the opportunity for new consumer wagering markets and the ability to advertise in mobile applications

programmatically. One Australian company at the centre of this movement is LIGR Systems, who pair graphic solution capability with real-time data and insights. LIGR collect and integrate data into rich statistical broadcast graphics, which can then be shared or white-labelled onto live streaming platforms and web properties. The next frontier will be to evolve the data capture process by using AI and machine learning to collect, synthesise and share data in a more cost-effective way.

THE BOTTOM LINE

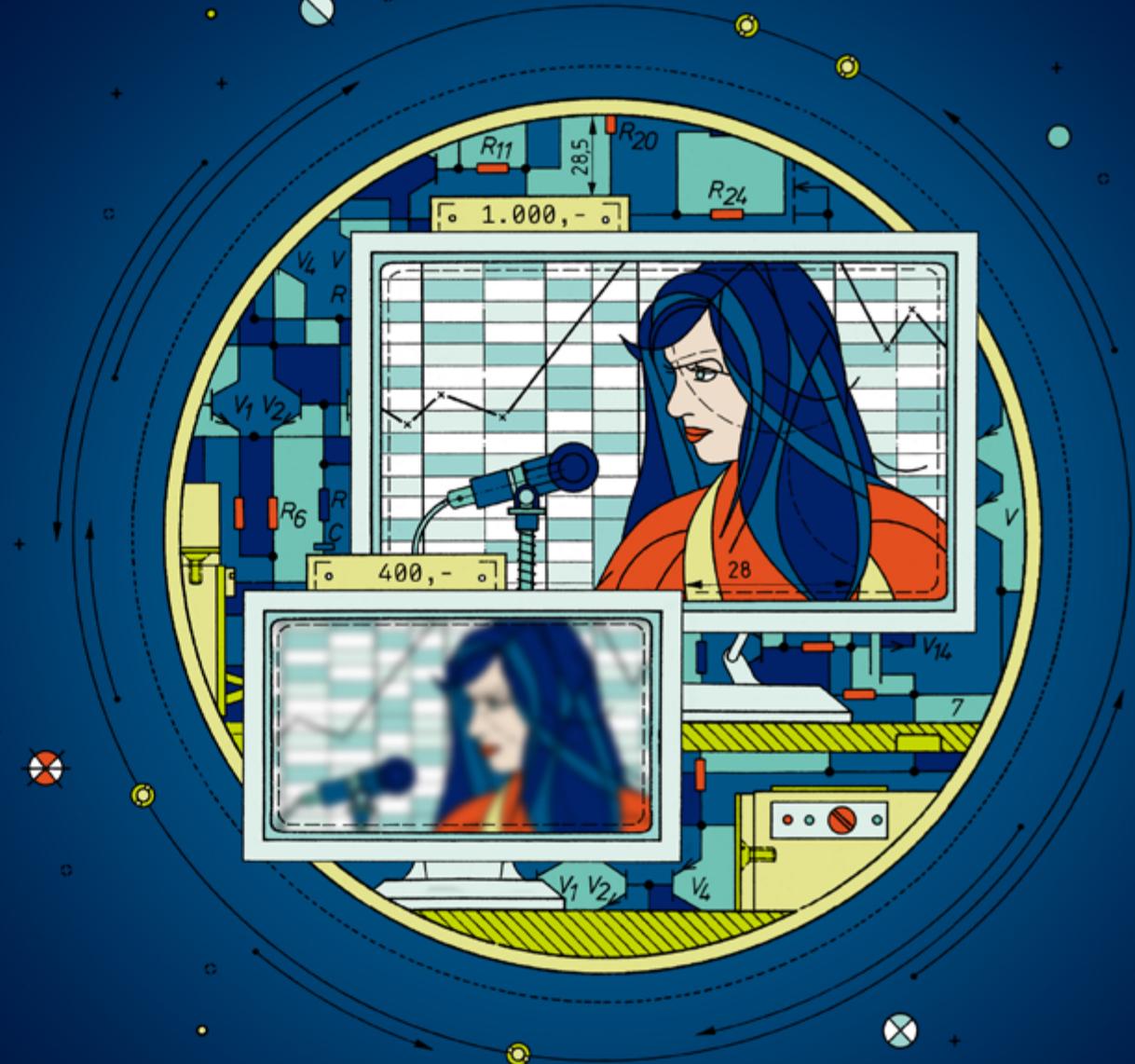
Despite its lack of scale, Australia is recognised globally as an excellent testbed for innovation in athlete data and the monetisation of that data due to the relative maturity of sports, technology, broadcast and wagering. Organisations looking to expand sports offerings such as wagering, broadcast and content should be aware of the major players in data capture and the fast-paced nature of innovation in monetisation and capability development. Tier 2 sports in Australia represent a growing opportunity for advertisers and platforms looking to create a more localised presence with consumers as the flywheel of data, content and audience continues to turn across more leagues.



TV's New Year's resolution

The start of the 8K wave

Leora Nevezie and Jacob Herman



It's unlikely that 2021 will be the year 8K TVs become mainstream, but decreasing prices and greater availability will see higher awareness and consideration as they continue their journey into the mainstream.



What is 8K?

8K refers to the pixel width of a TV (An 8K TV is 7,680 pixels wide which is rounded up to 8,000 pixels). This means an 8K tv can be much bigger in size because the increase of pixels makes it sharper, brighter and clearer.

While we predict another record year for 8K shipments globally, 8K will still make up less than 1% of the 200 million-plus television sets sold annually around the world.¹ In many ways, 8K is on a similar trajectory to 4K and Full HD before it, with only a niche segment of the population looking for the ultimate at-home entertainment experience, or those early adopters who can afford the significant premium to futureproof. In Australia, the biggest factors to influence 8K adoption in 2021 and beyond, apart from price and availability, are the recent surge in 4K TV purchases brought on by COVID-19 lockdowns, the availability of 8K cinematic and sports content, and the uptake of 8K gaming.

In 2021, Australian TV purchasing will slow due to the surge of lockdown TV buying in 2020. With some of the strictest lockdowns in the world, Australians spent an unprecedented amount of time at home in 2020. This led to a surge in TV sales, which brought forward the purchasing and upgrade decisions for many consumers. We anticipate this short-term spike in high-end TV purchasing will delay 8K adoption in Australia, as consumers who purchased 4K devices will likely wait five or more years before upgrading again. This anticipated delay in 8K adoption is not unique to Australia, however we expect to see a much more significant impact locally when compared to countries such as the US, which did not have as many prolonged, widespread lockdowns.²

8K devices remained too expensive for the average Australian consumer in 2020. There may have been a spike in 8K sales due to lockdown, but when sales results are released soon, we anticipate they will show that most consumers purchased a 4K device. With little 8K content available in the short term ([read our global TMT Predictions](#) for a deep dive on content availability), there will be limited reasons for consumers to upgrade their recently purchased 4K televisions over the next two to four years.

In 2021, Australian TV purchasing will slow due to the surge of lockdown TV buying in 2020.

With minimal 8K content currently available, the majority of 8K TVs purchased in 2021 will be based on a desire to future proof.

With less than 0.1% of video content created in 2021 predicted to be in 8K,³ the amount of content capable of taking advantage of 8K panels will be extremely limited for several years. However, as the price of 8K TVs continues to decline, we expect that consumers will consider purchasing 8K screens to futureproof based on expected future content. There are three primary content types Australian consumers will look to when weighing up 8K screen purchases in 2021: premium cinematic content, sport and gaming. [Read our global TMT Predictions](#) for detailed analysis on the factors that will impact purchasing decisions, such as price, alternate use cases, and other content categories.



8K movies

Cinematic content will be a top consideration as consumers look to bigger screen sizes (which benefit from higher resolutions) to replicate or replace the traditional in-cinema viewing experience. While streaming services continue to expand their library of 4K content, we envisage a small range of 8K content will become available soon.

In the interim, upscaling technology still provides a benefit, for example in using an 8K TV with 4K content. A range of content has already been shot in 8K but downscaled to 4K for release; these include *Homecoming's* second season on Amazon Prime, *Money Heist's* fourth season on Netflix and *Guardians of the Galaxy 2*.

This presents a catch-22 situation, as producers are unlikely to invest the additional effort required to release movies in 8K until enough 8K TVs have been purchased; however, consumers conversely are waiting on content before purchasing an 8K TV. With TV content increasingly 'cinematic' in quality, and new release movie content increasingly released onto streaming services simultaneous to (or even instead of) cinema release, this may encourage consumers to look to 8K TVs to provide the highest possible quality in-home screen experience, even if initially using content upscaling.⁴

8K sport

Australians love their sport and it has long been a key driver of TV technology adoption in Australia.

With the average Australian spending nearly six hours per week watching sporting events,⁵ the availability of 8K sports content is likely to be top of mind for many consumers looking to purchase a new television.

Currently, 4K sport is only available to select Optus Sport customers and Foxtel customers with an iQ4 box and a subscription to the appropriate Ultra HD sports package.⁶ The streaming platform Kayo currently only supports Full HD resolutions up to 1080 pixels.

Even with the appropriate package, not all sporting events are available in 4K. In 2020, only select sports such as Australian international cricket and F1 were completely available in 4K, while others like the NRL and AFL only had select games available in 4K. While there has to date been limited discussion of 8K live sport in Australia, we expect that once key sports provide 8K content it will again be a major driver of adoption. We expect availability of 8K sports content in Australia to be heavily influenced by the success of international trials, like those being conducted by BT Sport in the Premier League,⁷ as well as the yet to be seen 8K coverage of the delayed Tokyo Olympics.⁸

8K gaming

With two in three Australians playing video games, and 65% using consoles,⁹ the arrival of 8K gaming will serve as a strong use case for a wide range of Australians.

The recent release of the Xbox Series X and PlayStation 5 consoles, which are both 8K compatible, were an overnight sensation around the world including in Australia, with both selling out almost immediately.¹⁰ Demand has considerably outstripped supply and hopeful buyers who missed out will likely be waiting well into 2021 to get their hands on a device.¹¹

However, the limited availability of games that are capable of taking advantage of 8K resolution and the unknown frame rates at which they will run, means that early adopters are mainly futureproofing for when game availability improves.

How long this will take remains to be seen; it is unclear if developers will build games that render at 8K given the amount of additional effort and processing power required versus the perceived advantages of doing so. We expect most will wait several years for the eventual mid-cycle hardware refresh for both consoles in anticipation of increased processing horsepower and greater 8K screen adoption. However, in the interim, we expect 8K gaming to remain reserved for only the most determined, or those who are willing to invest in a PC with the highest end graphics cards.



THE BOTTOM LINE

While consumers wait to upgrade their devices, commercial 8K use cases may provide an opportunity for organisations to drive Australian adoption. Retail display screens, medical imaging and control room displays are examples of potential commercial use cases that panel manufacturers should consider as a primary focus to drive sales. These will likely have greater success in the short to medium term than consumer-focused efforts.

When it comes to content, 8K presents a range of interesting opportunities for the Australian ecosystem. For content distributors, sport may be one area to test a premium 8K offering. There is a dedicated group of loyal sports fans (approximately 20% of Australians) who would be comfortable paying more than \$30 per month for sport content,¹² which places

it as a premium compared to the competitive streaming market and existing sport content propositions. Alternatively, as the sports streaming market continues to heat up with the imminent entrance of Stan Sport,¹³ providers may look to 8K content as a differentiator against the competition.

For retailers and device manufacturers we see product bundling as a way to drive 8K TV adoption.

Brands and retailers have a unique opportunity to provide the latest gaming consoles or content subscriptions bundled with 8K TVs, enabling customers to experience the full capability of these devices. Such an offering would require close collaboration between a number of players but may provide a unique short-term opportunity to offer customers a differentiated, cutting-edge experience.

Note: Global financial predictions are rounded and have been converted from USD to AUD using an exchange rate of \$1 USD = \$1.30 AUD



From virtual to reality

Digital reality headsets in enterprise and education

Peter Bauld, Paul Stapelberg and Leigh Mannes



Deployments of virtual reality (VR), augmented reality (AR), and mixed reality (MR) (collectively known as XR or digital reality) will continue to grow in Australia across a variety of consumer and enterprise-facing use cases.

VR **Virtual reality:** completely replacing the real world with a digital environment.

AR **Augmented reality:** enhances the real world with a digital overlay.

MR **Mixed reality:** the seamless blend of the real-world with digitally created content where both environments co-exist and interact with each other.

For enterprise, this will range from simulating dangerous and complex environments for training through to soft skills development, exploration of spatial data, as well as augmented remote assistance for workers in the field.

We predict that Australia will be in line with global trends, with VR, AR and MR sales growing by 100% in 2021 over 2019 levels, as well as an increase in sales of software and services related to this technology.

This will be led by purchases from corporations and educational institutions, sales to enterprise and the educational use of wearable headsets for XR/digital reality.

Technical and logistical advances

Key technical and logistical challenges that had previously slowed enterprise adoption have, for the most part, been resolved as the platforms have matured. After supply issues both here in Australia and internationally during 2020, hardware is now generally more available. To solve the previous challenges faced by enterprise deployments, headset makers have established enterprise programs and support channels, offering device management and easing the path to mass deployment alongside traditional technology rollouts.

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Advances in the consumer VR market have shifted the focus from 'tethered' devices that require a power PC to 'standalone' headsets that include features required for immersive experiences such as full positional tracking and intuitive hand gesture control. Across education and training this gives the best of both worlds – the benefits of easier deployment with mass-produced standalone headsets, while still enabling detailed training simulations, such as giving workers hands-on experience in complex equipment operation.

Improved networks add to the experience

Australian mobile and fixed-line networks are reducing latency and increasing bandwidth, with an advancing 5G rollout and expanding footprint of fibre in the National Broadband Network (NBN). This helps enable the usage of remote rendering, delivering more realistic and complex experiences by creating visualisations in the cloud, streamed directly to lightweight headsets, while also opening further possibilities for real-time remote collaboration. The infrastructure required for remote rendering is also maturing, with its advent on the Azure cloud and other low-latency 3D streaming systems.



Content creation complexities

3D and immersive content will remain the largest component of digital reality spend for developers through 2021, which often requires complex software development solutions to make the content interactive (compared to standard video format) and to integrate it with wider systems in enterprise, such as Customer Management Systems (CMS) or Learning Management Systems (LMS), to name a couple. Learning content for XR headsets will remain more complex to create initially than content for traditional LMS approaches, but it has been demonstrated to lead to reduced training time and higher knowledge retention for learners, making it an appealing option.

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3D scanning technology for content creation may become increasingly automated as machine learning techniques mature but will quickly become a valuable reference to ensure accurate 3D modelling. The production process for creating real-time 3D models from existing Computer Aided Design (CAD) and Building Information Modelling (BIM) data will continue to mature, enabling organisations to unlock the value in the digital assets they already have. These digital assets are also in play creating 3D content outside of headsets, with benefits to content being utilised via handheld AR, such as the ARKit for iPhone, and mobile/desktop screens and across consumer facing applications.

THE BOTTOM LINE

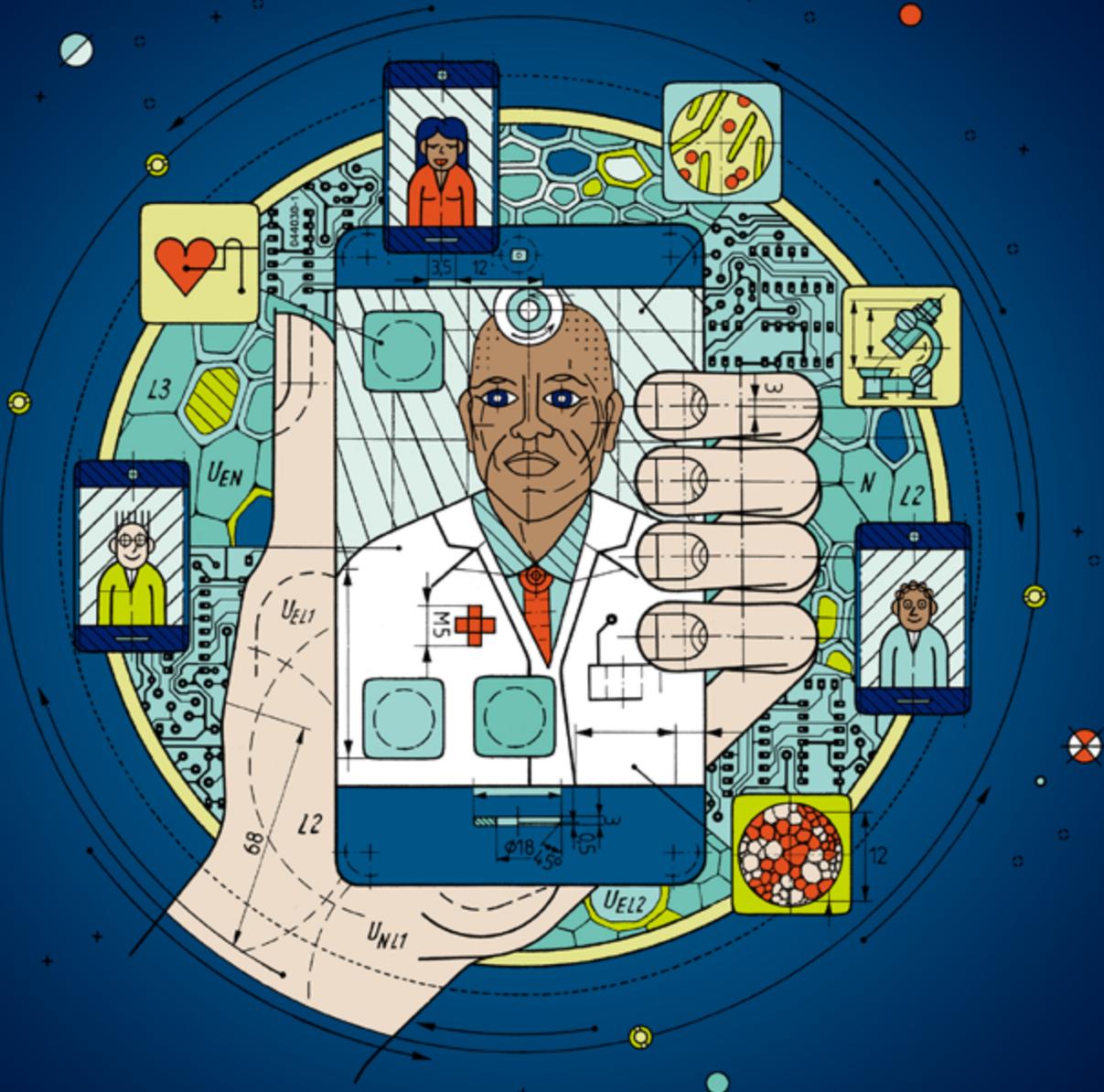
The market for XR headsets will continue to grow in 2021, as previous technical and logistical barriers to adopting the technology have largely been solved and the COVID-19 effect (such as reduced travel and remote working) has accelerated its use in enterprise and education. Organisations should consider approaching 3D and immersive content with a device-agnostic approach which will enable scaling with headsets available today, extract further value by reusing assets for handheld AR and traditional web/screen environments, and also position for future devices/technologies as they mature.



Video visits go viral

COVID-19 sparks new interest in video doctor's visits

Will Castles, Rob Price and Liz Scarano



Australia has an opportunity to ride the telehealth and virtual health wave created by changes in consumer behaviour as a result of the COVID-19 pandemic.

Compared to other nations, Australia stands to gain significantly from this shift, given our geography, aging population and the challenges of providing consistent quality of care to remote communities.

We predict that Australia will exceed the global average for telehealth adoption with more than 10% of Australians regularly using telehealth services in 2021. We also predict that the next five years will see a shift to virtual health as a consumer norm as the use of digitally-enabled health services – such as the use of virtual health technologies like apps for preventative health, care and recovery – grow exponentially.

Important to this shift will be the use of virtual health to move up the health continuum, changing not just the way healthcare is provided but also supporting the strong consumer demand for wellbeing enabled by wearables and connected homes.

We predict that Australia will exceed the global average for telehealth adoption with more than 10% of Australians regularly using telehealth services in 2021.

For this shift to happen, businesses, government and other stakeholders will need to be proactive and creative in building the right policy settings, delivery models and ecosystems – as well as significant change management programs – to deliver quality healthcare in a virtual context. To maintain the momentum created by COVID-19 they will need to capitalise on this now.

Telehealth – born out of necessity but here to stay

Theoretically, telehealth has long provided options for improving access to healthcare services in rural and remote areas struggling to offer face-to-face consultations due to the disproportionate urban location of the specialists and large travel distances to access medical services.

However, even with our obvious geographic challenges, limited funding and connectivity options negatively impacted utilisation of telehealth services prior to the pandemic, where just 0.1% of all Medicare Benefits Scheme (MBS)-funded attendances were virtual.¹ Globally, Australia has lagged behind and in 2018-2019 we averaged 8.8 telehealth consultations per 1,000 people, well below global leaders like Ontario, Canada, which averaged 72.2 consultations per 1,000 people over the same period.²

Many observers and service providers believed telehealth would take years to achieve widespread adoption across Australia, but COVID-19 rocked the telehealth landscape and was the catalyst for change. It has led to the easing of regulatory restrictions and increased funding, allowing for over 40 million consultations over phone or video since March 2020.³

Necessity may have given rise to telehealth, but we shouldn't take its evolution in a post-pandemic world for granted. For it to continue to evolve, telehealth will still need the right support and capabilities — which are starting to emerge — and if it receives these, the benefits will be significant.



Challenges within opportunities — what are the enablers and barriers to telehealth?

There are a number of enablers and barriers to building a telehealth and immersive virtual health future for Australia. These include harmonising policy and regulation to match consumer demand, building models, partnerships and capabilities to drive virtual health outcomes, and improving the availability of high-speed, reliable connectivity to Australians in regional and remote communities to meet the adoption of new virtual health technologies.

The Australian Government recently announced an extension of funding to \$2.4 billion and the easing of restrictions, with Minister for Health Greg Hunt saying that universal, whole-of-population telehealth will now be a permanent.⁴ Consumers are also shifting their behaviours towards embracing the adoption of telehealth, with 8% of respondents (and 10% of over-45s) from our [Digital Consumer Trends Report](#) stating they would continue to use telehealth services at heightened levels when the pandemic is over. It is reasonable to assume this number could be much greater still under a concerted government-led campaign to drive virtual health solutions. The rising adoption of home devices, with 81% of respondents having at least one connected device in their home – up from 78% in 2019 – and advancements in AI that enable diagnosis and monitoring will also contribute to increased consumer confidence and the uptake of virtual healthcare.

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Nevertheless, many challenges remain. While Australia has seen an improvement in connectivity in the last 10 years with investment in fibre, fixed wireless services and satellite, the high-speed and reliable connectivity that is required for rich virtual health applications is still likely to be years, rather than months, away for rural and remote communities. Moreover, some consumers, particularly older generations, still struggle with know-how in adopting new technologies, and Australians as a whole are becoming increasingly cognisant and concerned over the use of their data; four out of five respondents to our recent Digital Consumer Trends reported awareness that companies collect and use their data, with 78% expressing concern around the use of that data.

There are also the basics. In 2020, most telehealth consultations were over the phone but 26% of GPs find video consultations help them better assess the patient.⁵ Yet in a recent survey by the Royal Australian College of General Practitioners (RACGP), a quarter of GPs stated they don't have the necessary hardware or software to use video technology and that the adoption of video consultations requires additional support and education to be provided for them and the practice team.⁶ Through our work across the health sector, we see workable at-scale models for more sophisticated virtual interventions, such as three-way consultations across service providers and systematic access to and use of personal health data, are also significant challenges.

It's now or never – what are the implications for organisations?

So, what does this mean for businesses? How can they ride the virtual health adoption wave and what is the role of telecommunications service providers? The answer is that no single organisation can meet the virtual health needs of the population. Many of the enablers are in place or on their way, but solutions in this space will require collaboration on delivery models and ecosystems to deliver quality virtual health care.



A recent Deloitte study with TM Forum found that 40% of major information and communications technology (ICT) players around the world have a healthcare line of business but those businesses are currently generating less than 1% of revenue. Australian telcos have either made investments in health as an industry vertical or are exploring partnering options with a range of service and solution providers. Additionally, we are starting to see some medical providers consider digital partnerships with technology companies to create holistic offerings, through which consumers can effectively manage their overall health.

THE BOTTOM LINE

Although progress has to date been slow, the stage is set for a major and permanent shift driven by COVID-19 and government and business responses to the challenges the pandemic has created, as well as consumer willingness to engage with telehealth and virtual health solutions. Success will require market participants to double down on current thinking and investments in this area, as well as a critical focus on collaboration to drive the required outcomes. We see this as a once-in-a-lifetime opportunity to dramatically improve equality of access to leading-edge healthcare solutions – particularly in an Australian context – so let's not waste it.



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Contacts

Industry leadership

Will Castles

Partner, Consulting
National Telco, Media
& Entertainment Leader
+61 3 9671 5331
wcastles@deloitte.com.au

Peter Corbett

Partner, Consulting
National TMT Consulting Leader
+61 2 9322 5170
pcorbett@deloitte.com.au

Leora Nevezie

Partner, Consulting
National Media Sector Leader
+61 3 9671 6442
lnevezie@deloitte.com.au

Neil Pereira

Partner, Tax
National Tech Sector Leader
+61 2 9840 7219
npereira@deloitte.com.au

Kimberly Chang

Partner, Consulting
National Consulting Clients,
Industries & Markets Leader
+61 2 9322 3233
kimbchang@deloitte.com.au



Authors

Amrit Singh

Principal, Consulting
+61 3 9671 8398
asingh@deloitte.com.au

Dan Newman

Partner, Consulting
+61 2 6263 7048
dannewman@deloitte.com.au

Jacob Herman

Consultant, Consulting
+61 2 9322 5256
jaherman@deloitte.com.au

Jeremy Smith

Director, Consulting
+61 2 9322 5076
jeresmith@deloitte.com.au

Joshua Cutter

Senior Consultant, Consulting
+61 3 9671 6422
jcutter@deloitte.com.au

Karl Linhart

Director, Consulting
+61 2 8260 6544
klinhart@deloitte.com.au

Lisa May Mosse

Consultant, Consulting
+61 2 9322 7985
lmosse@deloitte.com.au

Mauricio Silva Pereira

Manager, Consulting
mauripereira@deloitte.pt

Paul Stapelberg

Manager, Consulting
+61 3 9671 7499
pstapelberg@deloitte.com.au

Pedro Goncalo Sanguinho

Senior Manager, Consulting
psanguinho@deloitte.pt

Peter Bauld

Director, Consulting
+61 421 386 207
pbauld@deloitte.com.au

Zack Levy

Partner, Consulting
+61 2 9322 3135
zlevy@deloitte.com.au

Contributors

Debora Costa

Manager, Marketing

Eric Leo

Director, Risk Advisory

Kate O'Brien

Editor, Marketing

The Agency, Deloitte Australia

Design, MCB D

Deloitte Insights

Creative

Kevin Weier, Jaime Austin, Govindh Raj, Tushar Barman
and Swagata Samanta

Cover artwork

Christian Gralingen



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