

Gen Z's role in shaping the Australian digital economy



We have set out to understand how the evolution of the labour market and the changes caused by the COVID-19 pandemic can be expected to shape future demand for aptitudes and skills and what this means for Gen Z in Australia—the fully digitally native generational cohort comprising those born between the mid-1990s and 2010. Our main findings are as follows:

- In the next decade, Gen Zers will become an engine of economic growth in Australia. The number of **Gen Z in work is forecasted to more than double to nearly five million by 2030, and their income (after tax) to increase to almost AUD 265 billion**, a 500% increase on 2019. The Australian labour market is set to experience a wave of change underpinned by advancements in artificial intelligence (AI). As AI and related technologies proliferate in the workplace, employees will place a greater premium on digital know-how and advanced cognitive skills such as creativity and problem solving.
- New technology, including the rise of Augmented Reality (AR), will continue to accelerate the digital transformation of the Australian economy. E-commerce in 2020 increased significantly, reaching 80% of all retail sales in August 2020. Already AR for online shopping is on the rise in Australia, with 51% of Australians reporting that AR would make their online and in-store buying experiences safer. Estimates indicate that the size of the AR market could reach AUD85- AUD90 million by 2022.
- Australia's Gen Z is well equipped to tackle the labour market of the future. The skills and aptitudes needed to flourish play to the natural strengths of Australia's Gen Z:
 - **Agility:** an ability to adapt and fuse new concepts on-the-job will be crucial to successfully navigating the future workplace.

- **Creativity:** previous research by Snap Inc. has shown that Gen Z are significantly more likely to both consider themselves to be creative and to undertake creative tasks. More than two-thirds of Gen Z in our survey said that they 'knew how to create something new' from online content, much higher than the overall sample share of 51%. Australian Gen Z's entrepreneurial instincts were apparent in the fact that 38% knew 'how to monetise content', a significantly higher share than among Australian Millennials and Gen X surveyed.
- **Curiosity:** consistent with their youth Gen Z are more eager to learn compared to elder cohorts—in our survey over 70% of Australian Gen Z had taken part in some form of online learning activity in the past week compared to 58% of older adults.

Background context

Commissioned by **Snap Inc.**, **Oxford Economics** has undertaken research to further understand the implications of the Coronavirus pandemic, and the associated global recession, on the long-term economic prospects of Gen Z. This companion report summarises evidence collected and draws out the major implications for Gen Z in Australia, one of the six markets that formed the basis for the analysis.

Gen Z will become a dominant force in the workplace by 2030

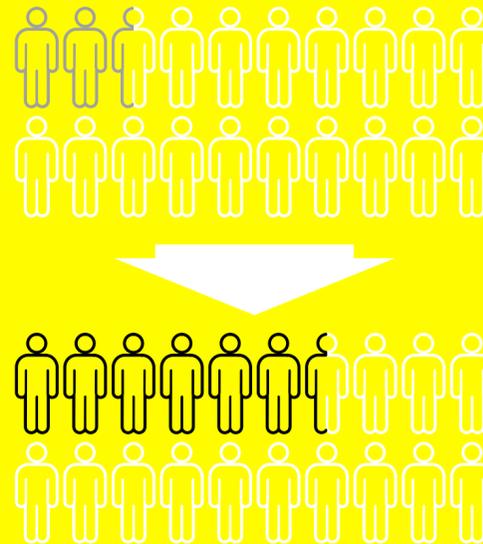


In Australia, there were 4.8 million Gen Zers in 2019, equivalent to almost 18.7% of the total population. While most of Gen Z is currently on the periphery of the labour market with many opting to focus at this stage on education. In 2019, more than 92% of Australian Gen Z was enrolled in school or college whilst just over one-in-three had some form of job, with many mixing their studies with part-time employment.¹

This picture is set to rapidly change over the next decade. Oxford Economics' forecasts show how Gen Z will become the heartbeat of economic growth, with those in-work more than doubling to nearly five million—more than 32% of Australian employment—by 2030. Moreover, the group's migration into more full-time working patterns combined with greater experience will naturally see their earning power rise sharply, outstripping the rest of the workforce. As a result, income (after tax) is expected to climb to almost AUD 265 billion in 2030, an five-fold increase on 2019.

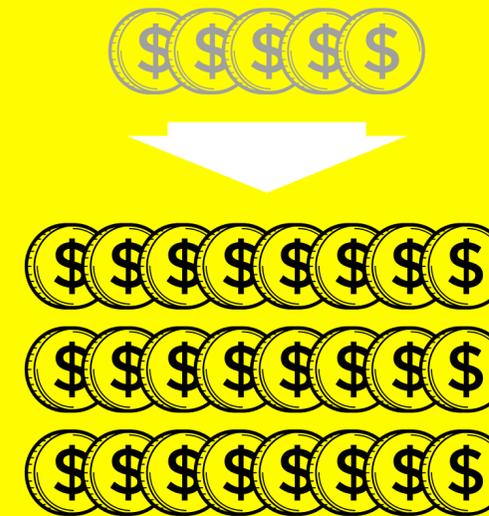
By 2030, Gen Z will make up almost a third of the workforce

Gen Z's share of total employment will rise rapidly, from **13%** in **2019** to **32%** in **2030**.



Their incomes will balloon over the next 10 years

Gen Z disposable incomes will increase more than **five-fold**, from around **AUD 52 billion** in **2019** to **AUD 265 billion** in **2030**.



They will become the engine of consumer spending

Gen Z's consumer spending will increase more than **five-fold**, from **AUD 45 billion** in **2019** to **AUD 228 billion** in **2030**.



¹ Based on data from the Australian Bureau of Statistics.

Technology and COVID-19 set to transform skills demand...

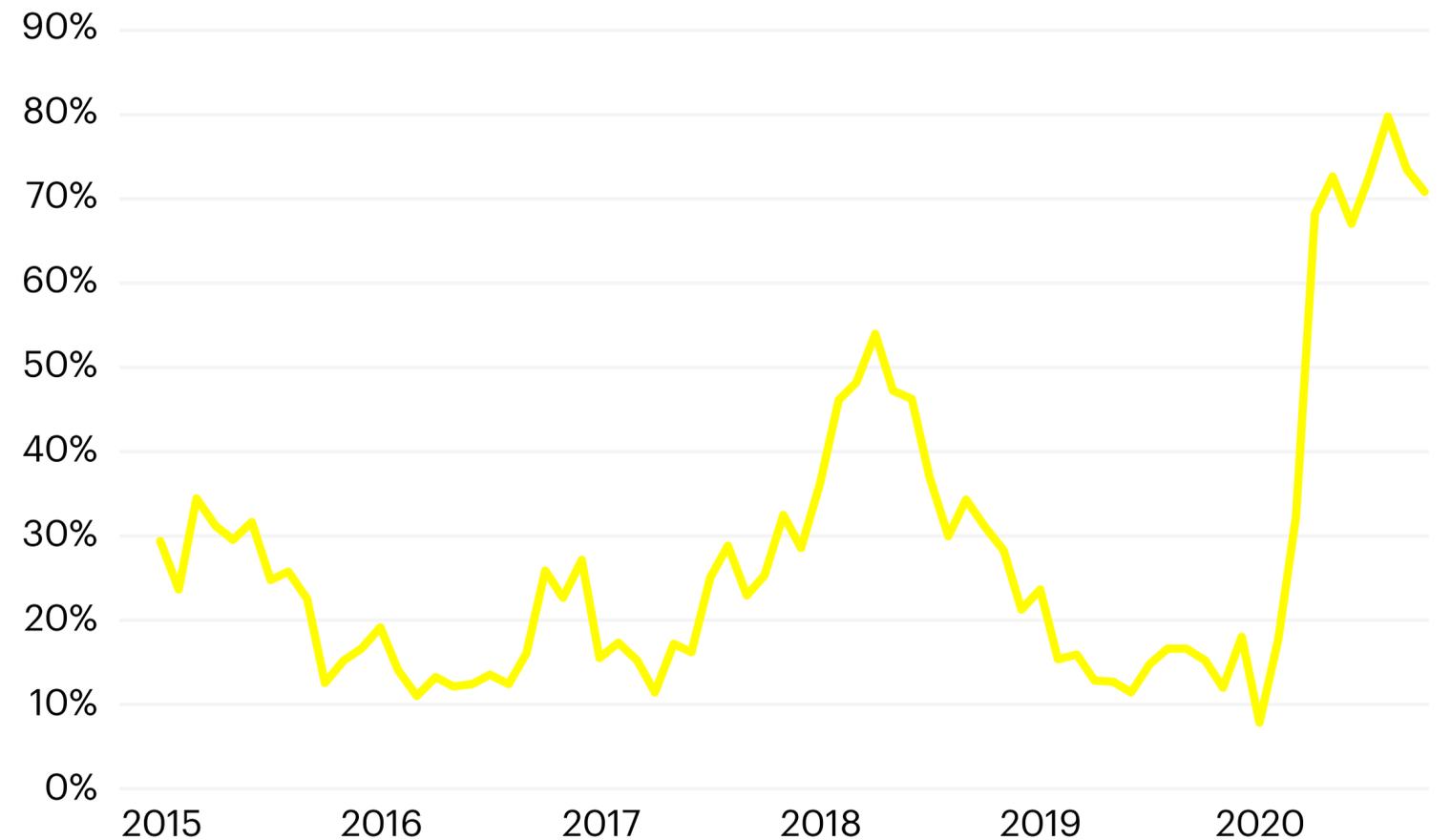
Our analysis of job postings data over the last five years in Australia has highlighted how the growth of social platforms, and the associated proliferation of Artificial Intelligence (AI), cloud solutions, robotics and automation, have had substantial spillover effects in demand for digital skills. The Australian labour market is set to experience a wave of change underpinned by advancements in artificial intelligence (AI). As AI and related technologies proliferate in the workplace, they will place a greater premium on digital know-how and advanced cognitive skills such as creativity and problem solving.

These disruptive forces will be accelerated and, perhaps, exacerbated by COVID-19. Digital society is at the heart of these trends. Social distancing has encouraged a new generation of online shoppers—the share of e-commerce in 2020 increased significantly compared to its previous trend, reaching 80% of all retail sales in August 2020.

Moreover, compared to previous recessions, this downturn can be expected to engender more significant structural change assuming that the pandemic, to some extent, has permanent effects on consumer behaviour, creativity, and comfort with technology. All this disruption will create a greater requirement for re-training among the existing workforce, and, more broadly, place an increased emphasis on lifelong learning.

The Covid-19 pandemic caused a surge in online shopping, as well as an explosion in the start-up scene

Online sales, % of total (seasonally adjusted)



Source: Australian Bureau of Statistics

...in favour of Gen Z's innate agility, creativity, and curiosity

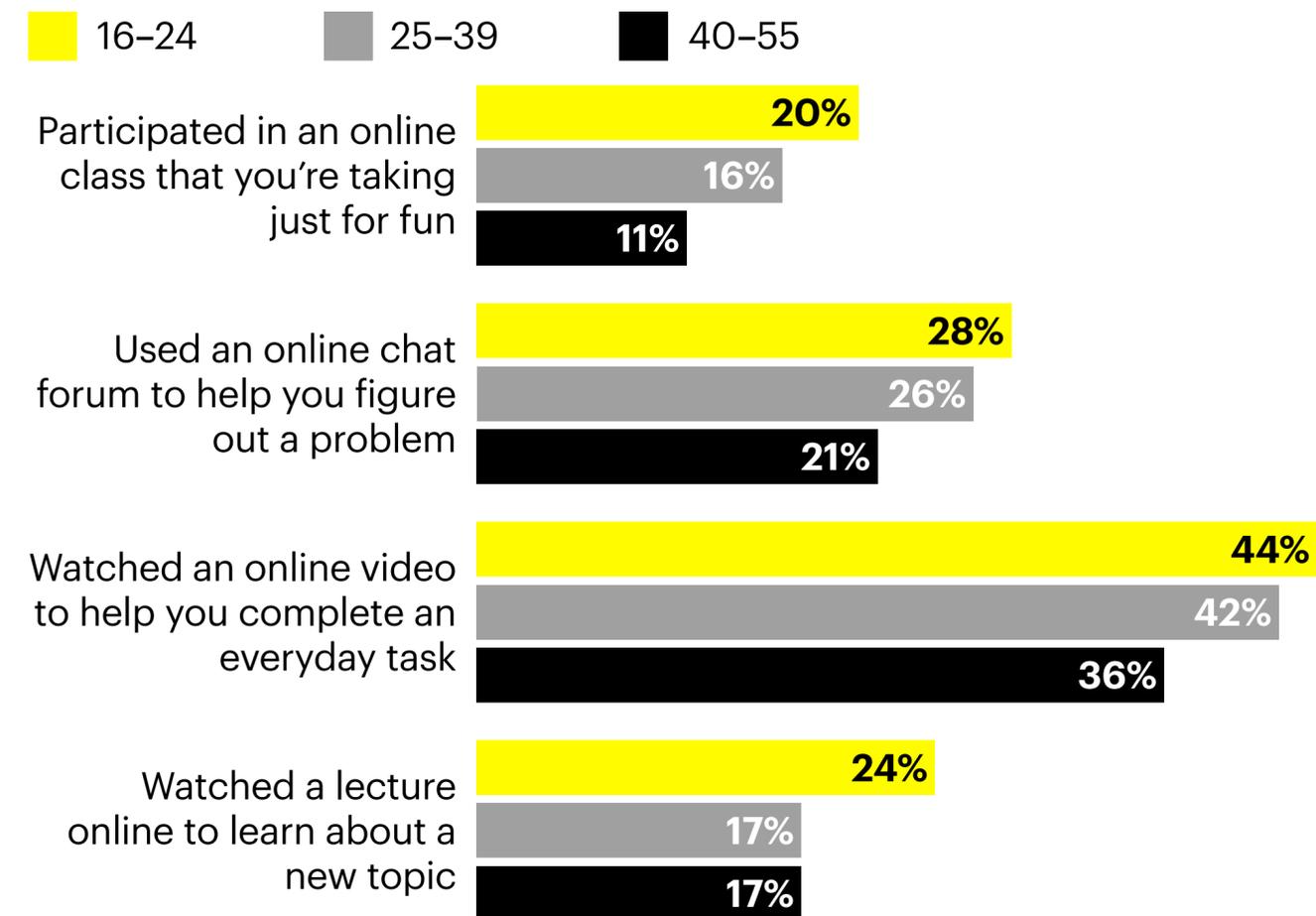
All these trends would seem to play to the natural strengths of Gen Z in Australia. Past literature has highlighted the potential for AI to generate age-biased technological change, with older workers less incentivised to retrain (due to fewer remaining working years) and being less mobile.² Moreover, our consumer survey highlighted Gen Z's relative eagerness to embrace digital technology as a tool for learning.

Australia Gen Zers were almost twice as likely as Gen X to have participated in an online class for fun, used a chat forum to solve a problem, or watched an online lecture to learn about a new topic. Further, a survey by Cassandra Research on behalf of Snap, Inc. shows that almost eight in 10 Gen Z describe themselves as creative compared to seven out of 10 of older generations.³

Our survey also showcased Australia Gen Z's natural aptitude in digitally creative tasks. More than two-thirds of Gen Z we surveyed, said that they 'knew how to create something new' from online content, much higher than the overall sample share of 51%. Gen Z are also more likely to know how to create videos, gifs, websites and blogs compared to older generations. Some 60% of Australian Gen Z knew how to use digital platforms to raise awareness about social issues compared to around 40% of older generations. Moreover, Australian Gen Z's entrepreneurial instincts were apparent in the fact that 38% knew 'how to monetise content', a significantly higher share than among Australian Millennials and Gen X surveyed. Gen Z were also more aware of commercial restrictions relevant to online content, with 40% saying they were aware of different types of licences that apply to online content compared to less than 35% of older generations.

Gen Z more likely to participate in digital learning

Share of respondents who had...



Source: YouGov data, Oxford Economics analysis

² Michael Webb, "The Impact of Artificial Intelligence on the Labour Market" (Working Paper, Stanford University, 2020), 61.

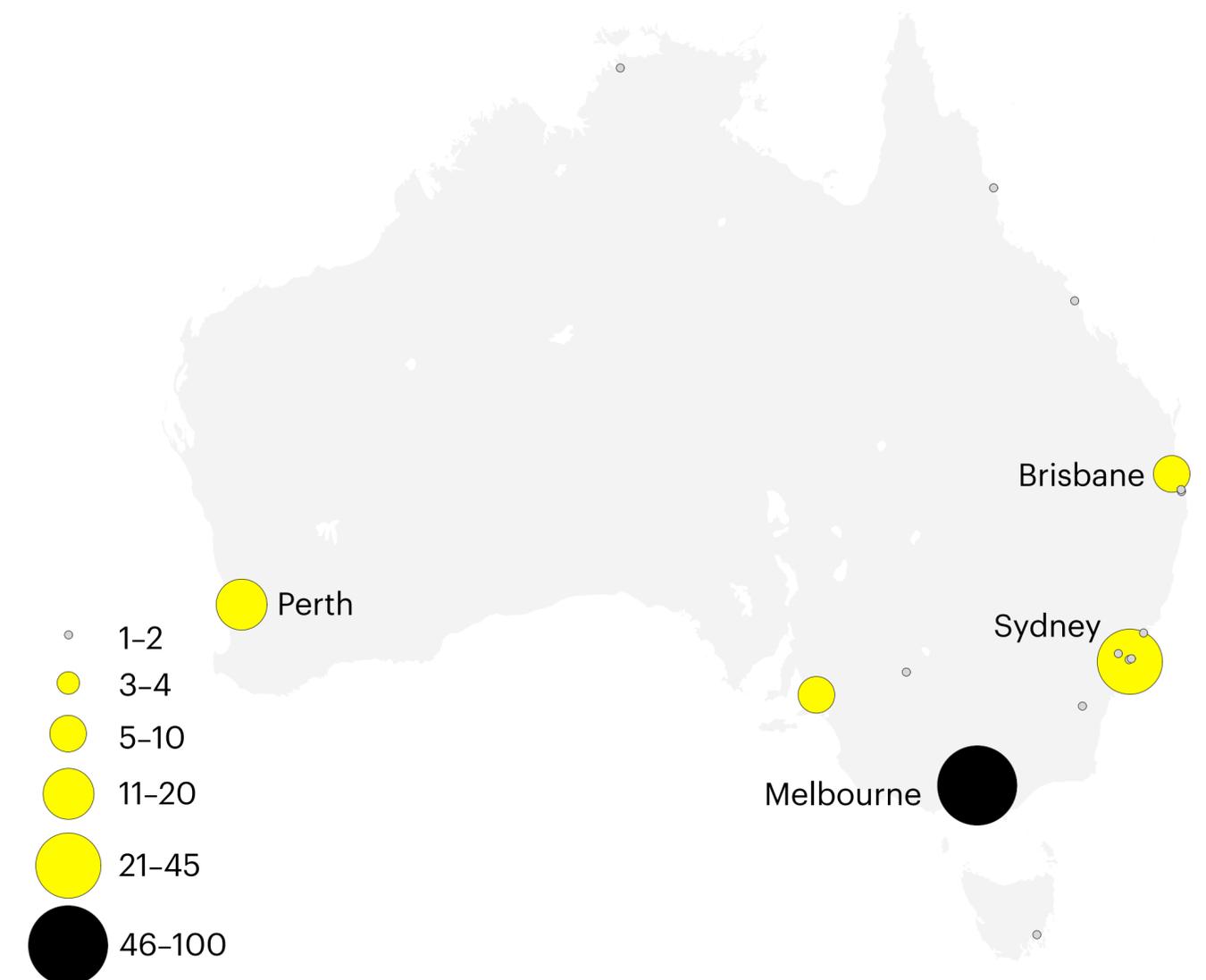
³ 2021 Cassandra research, "Say Hello to the Snapchat Generation," commissioned by Snap Inc. N=1,500 respondents (520 Gen Z, 481 Older Generations)

Augmented reality has the potential to transcend business...

Our research has pinpointed AR technology as a perfect example of some of the important structural trends that will shape the labour market over the next decade. To overcome shortcomings of official data, we have used web-scraping to understand more about the current state of the sector. This suggests that Australia is home to around 5% of the world's AR companies—roughly the same share as Germany and Canada. Geographically, these firms are clustered in Australia's major cities, notably: Melbourne, Sydney, Brisbane, Perth, and Adelaide. Because of COVID-19, the usage of AR for online shopping is on the rise in Australia, with 51% of Australians reporting that AR would make their online and in-store buying experiences safer, according to a survey by GetApp.⁴ Estimates by analyst firm Digi-Cap indicate that the size of the AR market could reach AUD85–90 million by 2022.⁵

AR's growth potential is vast and has been accelerated by the pandemic, notably in retail where major brands have turned to AR as a means to help replicate the in-store experience. But perhaps the most important feature of AR that will support its growth is its versatile utility. Already real-world applications range well beyond e-commerce and marketing to healthcare, education, architecture, entertainment and manufacturing. Anticipating the growth in the AR/VR space, the Victoria government has invested AUD 148 million in AR/VR education, robotics, animation, design, and artificial intelligence (AI).⁶

Number of AR companies in Australia



⁴ <https://www.getapp.com.au/blog/1733/australias-interest-augmented-reality-shopping>

⁵ <https://www.zdnet.com/article/australia-looks-to-capitalise-on-150b-ar-and-vr-market-opportunity/>

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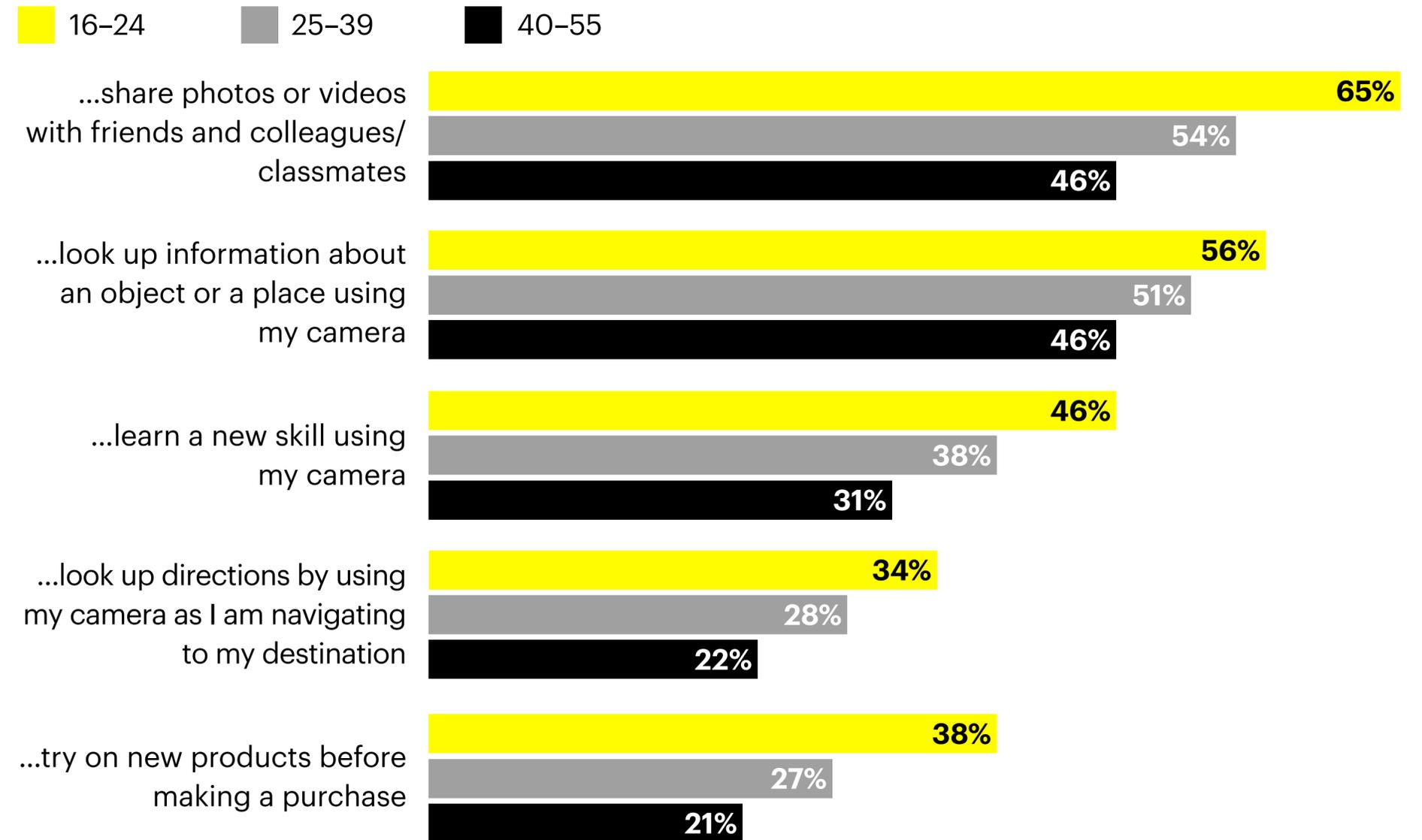
...and Gen Z are in pole position to profit

In Australia, Gen Zers enjoy a major competitive advantage in their innate familiarity and understanding of AR compared to older workforce cohorts. A significantly higher proportion of Gen Z know how to use filters, lenses, or other digital effects to support everyday tasks such as trying on products or looking up information.

Gen Z, therefore, appear primed to exploit the potential proliferation of AR across the consumer and industrial economy. This point was validated by interviews with AR entrepreneurs and pioneers and experts (see detailed overleaf) which highlighted that Gen Z's natural creativity and agility are highly prized in this sector.

Gen Z are more familiar with AR

Share of respondents who knew "how to use filters, lenses or other digital effects to..."



Source: YouGov data, Oxford Economics

Case study insights

“ Gen Z have been exposed to smartphones and software their entire lives and have an instinctive understanding of technology. They have a better understanding of how to design mobile products and services for their own demographic.”

David Loughnan, MD, Unbnd

Unbnd is an Australian social AR company focusing on creating immersive experiences using AR. Their work ranges from social filters and lenses to web- and app-based AR. Recently, they collaborated with Samsung to create a webAR platform to launch new products in Samsung and partner retail stores around Australia and the UK. The experience allows consumers to explore and pre-order new devices in AR before they had even arrived in the country. Managing Director, David Loughnan, is very excited about the different ways in which AR is being used and anticipates a number of utility applications in the future. He sees AR being used to build a stronger link between brands and consumers. Unbnd recently created a filter for Nike using Snapcodes where consumers were educated about the inner workings of the sneaker using AR at the point of purchase.

He believes that Gen Z's agility and their comfort with using digital technology will stand them in good stead in the workforce in the future. Their ability to absorb information quickly and from a variety of digital sources will help them cope with an evolving workplace where professional qualifications such as degrees and diplomas will become less relevant.

“ My journey with AR started with Snapchat lenses and filters and with time I became obsessed with learning how to improve the lenses and filters I made. Because of this, I was able to make a career out of my creativeness.”

Abbas Sajad, Sydney-based illustrator and lens creator

Abbas Sajad, based in Sydney, is an illustrator who creates AR filters for various communication and social media platforms. Recently he has created AR experiences for the United Nations, singer Dixie D'Amelio and brands such as Sportsbet, Absolut Juice, and Sony Pictures.

With many brands now adopting AR, he expects its prevalence will continue to rise in Australia. He sees AR being widely used, from e-commerce try-ons to more utility uses in industry and more innovative uses for learning and entertainment. This will continue with technological developments such as Machine Learning algorithms and improvements in hardware (e.g., Spectacles or Glasses).

Abbas comes from a design and illustration background and has built up his lens-development skills using online tutorials and videos. Abbas uses a variety of tools to build his AR models but then exports them to Lens Studio to combine them into a lens and distribute it on Snapchat.

According to Abbas, younger generations, especially Gen Z, are more accustomed to digital technology as they have grown up with it. Abbas explains that he believes that these technologies have helped the younger generations to mature quicker than older generations and become more entrepreneurial. Younger generations now have access to information and courses from all over the world right at their desks, which gives them an advantage in adapting to new technology.

Summing up and a call to action

The forces unleashed by the latest wave of digital technology, and accelerated by COVID-19, will be highly disruptive, forcing individuals to adapt and learn new skills more frequently than in the past. This trend will create challenges for policymakers, businesses and workers of all generations. Our research programme has identified the following five key themes:

- **Plug the educational attainment gap:** widespread school closures across Australia in 2020 call for immediate action. In Australia, K-12 schools have experienced interruptions in every state and territory, although the extent and period of closures have varied significantly across jurisdictions, an event that might affect children's attainment particularly those from lower income households. Additional tuition is urgently required to correct for this.
- **Supporting the economic recovery whilst not impeding structural reform:** The Australian economy has started to recover from the COVID-19 crisis with unemployment rates falling to 6.6% in December 2020. Our forecasts expect GDP to recover to a growth of 2.9% in 2021 compared to a decline of 2.8% in 2020. While risks to recovery from the pandemic remain, the challenge to the government is to ensure that the years of lost education and on-the-job training do not have a long-term impact on Australian productivity.
- **Maximising the potential of digital technology to meet the re-skilling challenge:** despite being at the root of disruption, digital technology can also be fundamental to the solution. Our survey suggests that Australian adults are well ahead of the curve with 81% of those surveyed engaging in some form of digital

learning activity in the past week compared to 53% overall. AR offers immense potential for education and training particularly in fields related to the physical sciences given its capacity to recreate virtual laboratory settings (see below).

- **Achieving a mindset shift around lifelong learning:** digital technology can certainly help break down barriers to participation but what is also required is a broad mindset shift so that a culture of learning becomes endemic. In an OECD survey, nearly 76% of Australian adults (over 25) indicated that they did not *want* to participate in either formal or non-formal education, despite more than half of this group indicating that they had actually undertaken some form of it in the past year.⁷
- **Refitting education to the new Industrial age:** more fundamentally, it is becoming clear that an education system that is focused on the acquisition of specialised knowledge will not be fit for purpose in the new Industrial age. A shift towards problem-based learning will better equip students for future challenges in the workplace. The University of Adelaide is one of the first universities in Australia using an e-Learning programme that uses AR among other technologies to enhance their learning using AR-enabled apps to visualise physical geography and human biology and even handle planets.⁸

⁷ Based on data from the OECD's Survey of Adult Skills which can be accessed at https://stats.oecd.org/Index.aspx?DataSetCode=EAG_AL

⁸ <https://arts.adelaide.edu.au/news/list/2019/06/25/augmented-reality-transforming-education>

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