Technology

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Microsoft wants you to love its latest offering
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Skills crisis pushes wages up by a third

Nicholas Therkelsen-Terry says until borders reopen, businesses are going to face bigger software bills. PHOTO: PAUL HARRIS

Exclusive

John Davidson

The cost of hiring skilled software developers, security specialists and data experts has gone up by about 30 per cent in Australia in just 12 months, and the policy of trying to eliminate COVID-19 from the country is a large part of the reason, software companies claim.

Australia needs to rethink its closed border policy, and make it easier for seasoned technology workers and global talent to either return home or migrate here, if the country's nascent tech boom is going to continue and without costs spiralling out of control, some leaders in the sector have said.

In interviews with *The Australian Financial Review*, the leaders of several companies expressed their concerns. The co-founder of one Brisbane-based software company, which specialises in machine learning, said it now costs his company 28 per cent more than it did just over 12 months ago to hire staff with "the same level of talent".

The chief executive of a Melbourne-based software company, which develops employee management software, said the cost of hiring new workers was now 40 per cent higher than it was 18 months ago: a per-annum increase of 27 per cent, which he has had to pass on to his existing staff, too, just to keep them.

And the CEO of another Melbourne-based software company, which helps businesses move to the cloud, said he had seen wages go up by a median of 30 per cent this past year, and by even more for staff with technology skills that are in particularly short supply.

Part of the reason, they all said, was that demand for their services had increased dramatically during COVID-19, when many of their customers accelerated plans to modernise their IT systems. That led to an increase in demand for skilled technology staff, especially senior ones, which was pushing up wages.

But another factor was that Australia's closed border policy was making it practically impossible to fill those vacancies with seasoned expatriate workers wanting to come home, or overseas workers hoping to migrate.

"The biggest challenge at the moment is the skills shortage in Australia, which is being exacerbated by the closed borders," said Nick Therkelsen-Terry, co-founder and CEO of Max Kelsen, which builds machine-learning models to help businesses make predictions.

"The closed borders means our net migration in technical skills is near zero, when there is a big increase in demand for technical skills.

While the burgeoning tech sector in Australia meant the country was not losing as many technology graduates overseas as it was during the worst years of the brain drain, getting senior staff to come to Australia, to mentor graduates, was becoming a huge problem, Mr Therkelsen-Terry said.

"We're losing fewer young people to Silicon Valley than we were five or 10 years ago, but we're not bringing in the senior skills that are needed to make sure those young people get the most out of their career," he said.

Until Australia reopens its borders, "our clients are going to have to get

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Brothers raise $6.7m for IBS treating self-hypnosis start-up

Exclusive

Paul Smith

Brothers Alex and Chris Naoumidis have closed a $US5 million ($6.7 million) funding round from Australian and US-based investors for their medical technology start-up, Mindset Health, which has tapped into the COVID-19 boom for remote treatments with a portfolio of hypnosis-based digital therapeutic apps.

The Melbourne-based pair has scored backing in a seed round led by well-known US angel investor James Beshara, with fellow US funds Banana Capital and Fifty Years and with Australia-based Impact Investment Group's venture fund, Giant Leap.

Mindset partners with world-leading researchers and experts to make its evidence-based hypnosis programs accessible through mobile apps. Its current flagship product, Nerva, aims to help patients manage irritable bowel syndrome with what it describes as a self-management program based on gut-directed hypnotherapy.

It will use the funds raised to expand and market the program, as well as develop others focused on menopause, depression and chronic pain. It will more than double its team from 12 to 40 staff and has plans in place to serve 100,000 users a month.

The brothers are second-time start-up founders, having previously built dress-sharing app Covet, which failed to become a successful business. Alex Naoumidis said they wanted to work on something more meaningful and

Chris and Alex Naoumidis have closed a funding round for their medical technology start-up Mindset Health.

believed hypnosis was an unfairly stigmatised treatment technique perfectly suited to digital delivery.

They worked with US-based clinical psychologist and author Michael Yapko and gut-directed hypnotherapist Simone Peters, who has a PhD from Monash University in the area, to develop the content. This appears on the app as prerecorded audio sessions, similar to those in meditation apps.

"Hypnosis-based therapy is effective for most people, with some being more receptive than others," Mr Naoumidis said.

"Hypnosis is performed through voice and closed-eye sessions even when done in person, so it is one of the best techniques to be delivered via a mobile app and studies have shown are comparable when done in person or through a recording."

He conceded the health app marketplace was very crowded, but said Mindset differed from most, because of the effort they had put into providing evidence of its efficacy. This was done, he said, through a randomised controlled trial and was supported by a retrospective study.

The company had previously attracted a $US1.1 million pre-seed funding round after coming through US-based accelerator Y Combinator. It was there the Naoumidis brothers became acquainted with Mr Beshara.

Mr Beshara said he had been impressed by the brothers' ability to both set large ambitious quarterly goals and consistently hit them.

"In eight years of investing in start-ups, I've rarely come across a space as massive, as scalable, and as underserved as digital hypnotherapy for a variety of illnesses," he said.

Mr Naoumidis said the brothers learnt a lot from the failure of their first start-up, and put those tough lessons to the challenge of growing Mindset Health. He said founding a company with a sibling had advantages over other founding teams, when people had to learn about each other's personalities while building a company.

"We spent six months building the dress rental start-up without speaking to a single user, and ended up building a bloated app with all these features that our target market didn't care about," Mr Naoumidis said.

"I think Chris and I work well as we have a deep understanding of each other's strengths and weaknesses, and have learnt how to manage disagreements over many family arguments."

Did Waddle founders leave a fortune on the table?

What's the deal

Adir Shiffman

It's not often that someone might regret making $31 million, the price paid by software giant Xero to buy fintech start-up Waddle last August. Last week, less than a year after that purchase, Commonwealth Bank chose Waddle to power its return to invoice financing.

It is the kind of deal that can see a start-up soar, so did the Waddle founders – former schoolmates Leigh Dunsford, Nathan Andrews and Simon Creighton – sell too early?

In individual terms, Waddle's three founders made between $5 million and $10 million. An earn-out based on performance could triple that number, but the speed of the CBA deal means they may have left a second fortune on the table.

Retrospect is a dangerous perspective in the debate over when is the right time to sell a company, a discussion that will become increasingly common as the size and frequency of Aussie tech exits grow.

Waddle was founded in 2014 and lets companies access the cash locked in unpaid customer invoices. Rather than purchasing these invoices at a discount, called "factoring", Waddle provides a variable line of credit according to the value of outstanding invoices.

By 2019 things were going well. With just 18 staff, Waddle had lent $275 million and closed a $4 million growth funding round. The platform had integrated with MYOB, Quickbooks and Xero, and co-founder Creighton said Waddle "stands alone with unmatched user experience and automation".

In 2020 Xero came knocking, excited not by the lending business but by the tech. CEO Steve Vamos wanted to build Waddle into an open platform supporting a multitude of lenders, and with Xero already managing $850 million of invoices it was a great opportunity.

Waddle shareholders were offered $31 million of cash up front, and up to $80 million in total cash and stock based on future performance. Everyone took the deal, including the founders.

The CBA partnership is huge for Waddle's credibility with other organisations, as it means a globally respected bank has validated its open platform model and thus Vamos' vision.

The deal should help Waddle's founders hit their earnout target, but they missed the chance to now demand an enterprise SaaS valuation rather than the lower fintech one, which could have been far more lucrative.

It is possible, of course, that CBA would not have done the deal without the comfort of Xero's $20 billion valuation, or Vamos, the former head of Microsoft Australia, to personally negotiate the deal. But the question of Waddle's sale valuation is pertinent.

Another similar Aussie start-up is Butn, which in FY20 lent $167 million and generated $2.8 million of EBITDA on $4.7 million revenue. MYOB is a

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Windows 11: built to be loved, not just needed

John Davidson

There is one simple reason Microsoft changed its tune and announced a brand new version of Windows, the man in charge of the just-announced operating system says.

The company was tired of Windows being viewed as the operating system people *had* to use, and wanted it to become the one people *loved* to use.

Panos Panay, the chief product officer in charge of Windows at Microsoft, said it was that conversation with Microsoft chief executive Satya Nadella, not long after Mr Panay took charge of Windows in 2018, that got the ball rolling for Windows 11.

The update, which the software company announced last Friday, will be rolled out first on new PCs, and then as a free upgrade on existing PCs, by the end of the year.

"When I took some responsibility over Windows, the conversations with Satya were interesting," Mr Panay told *The Australian Financial Review*.

"They went from, 'sure people need Windows, but where the world is moving, and the way the creative community is growing, we really need to move people from needing Windows to loving Windows'."

Those conversations resulted in an online-only launch last Friday, when Microsoft reversed its policy of only making incremental updates to Windows and announced the biggest overhaul since Windows 10 in 2015.

While many of the changes were brought about by the way the pandemic has altered the way people use computers, it wa also an overhaul that had emotions built right into the product design spec, Mr Panay said.

As part of testing of the new version, users were hooked up to magnetic resonance image machines, and new fea-

Panos Panay, chief product officer in charge of Windows, says Microsoft has invested in trying to make Windows 11 a delight to use, rather than a chore.

tures were judged by how well they caused the joy and emotion centres in the brain to light up, company officials said.

Simple changes in Windows 11, such as moving the "Start" button from the bottom left corner of the screen to closer to the middle, do not just make the new version more efficient to use than Windows 10: MRI scans show they make it more delightful.

But Windows 11 has more substantive changes, too, many of which bring the operating system more into line with Apple's (arguably lovable) Mac OS.

Just as Mac OS allowed users to run iPad and iPhone apps, Windows 11 would let users run Android ones, helping to bring apps such as TikTok and Instagram to Windows in a way that was deeply embedded into the overall operating system, Mr Panay said.

"The best part about the Android apps is how they integrate into the task bar, and into the Start [menu]. It's part of the windowing model. It just makes [Android] part of the product," he said.

And just as Apple's iPhone, iPad and Macs all support video, voice and text chat through built-in apps such as FaceTime and iMessage, Windows 11 will have Microsoft's own app, Teams, built right into the taskbar.

But of all the new features, Mr Panay said, his favourite change was the way the overall system worked, in a more delightful fashion than Windows 10.

And it turns out, there are productivity benefits to be had from using an operating system that appeals to your emotions in a positive way, rather than one that frustrates you.

"Try and write a story, if you will, or create a drawing or write a love letter when you're angry and see how that goes," he said. "And then write it when you're inspired and see how that goes.

"Don't get me wrong, the technical aspects of this product are off the charts. I'm super proud of it all. But really there's also something quite elegant about the feeling you get when you use the product, and the craftsmanship in the product brings that to life."

RBA's Schwartz backs female-only VC fund

Exclusive

Jessica Sier

Reserve Bank of Australia board member and property sector leader Carol Schwartz has put money into a new venture capital fund, focused entirely on backing female-founded tech companies in Australia and the US, with Sydney-based online training start-up HowToo banking an investment.

ALIAVIA Ventures is headed by former Google, YouTube and Spotify ANZ managing director Kate Vale and Marisa Warren, who also founded female founder-focused accelerator ELEVACAO. It is the first early-stage venture capital firm focused solely on women founders.

All potential portfolio companies must have at least one female founder with a significant equity position and C-level role.

Ms Schwartz, who is investing through her family office, Trawalla Foundation, said explicitly investing in women-led businesses was urgently important.

"Of all the venture capital sloshing around the world, women get less than 2 per cent of it," Ms Schwartz said.

"It's a phenomenon I cannot understand at all, why venture capital in Australia is largely preoccupied with investing only in other men."

It is a sentiment echoed by ALIAVIA's Australian founders Ms Vale and Ms Warren, who run the fund from California.

"It's so difficult for women to raise money in that pre-seed stage in Australia," Ms Warren said. "It all comes from angel investors because the VC firms don't look into them."

As well as Ms Schwartz's investment, ALIAVIA said it took part in a $2.5 million seed investment round for online learning platform HowToo.

HowToo, founded by Lisa Vincent and Jenny Barltrop, has developed software that lets organisations create digital courses from their own in-house knowledge, with an AI-powered component to discover and create more content.

Its funding round was led by Moelis Australia with co-investments from Jelix Ventures as well as ALIAVIA.

ALIAVIA came across HowToo as the Sydney-based company was experiencing a sharp lift in traction last year.

Governments and companies were realising they could capture in-house knowledge through learning courses and sell it as a product. Ms Vincent and Ms Barltrop developed software that creates, searches, matches and reviews content.

"We realised we definitely needed to ramp this up quickly," Ms Vincent said. "Now we've got this runway, and this external accountability, we want to make the best use of every single dollar."

Kate Vale and Marisa Warren run venture-capital fund ALIAVIA from the US, but it targets investments in Australian female start-up founders.

Since launching in February, HowToo has secured 50 paying customers and 10,000 learners.

The new capital will be used to expand the team, particularly developers, and in sales and marketing.

Ms Vincent said the capital-raising process was largely positive, as HowToo had tapped into a network of female investors prepared to take meetings and help them formulate ideas.

"Women don't quite have access to the same networks as men, so my advice is to really understand the technical angle of what you're doing and be able to talk about it in depth," she said.

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Did Waddle founders leave fortune on table?

significant Butn shareholder, and an imminent IPO has been mooted at a valuation of $80 million.

Whereas the Waddlers are hopefully already living it up, Butn's founders won't personally get that $80 million. But the listing allows them to continue their wealth creation journey, a chance the Waddle founders relinquished to Xero.

Start-up founders mostly don't do it for the money. They are passionate about solving problems and building something great. A 22-year-old Mark Zuckerberg famously refused to sell two-year-old Facebook to giant Yahoo for $US1 billion. He is now worth $US123 billion.

Yet few start-ups have Facebook-like potential and a bird in the hand can be very tempting, particularly if it's the golden goose.

Deciding to take the money can be reasonable. When Israeli start-up Waze sold to Google for $US1 billion in 2014, many excoriated shareholders for exiting too early. But the founders had agreed to take that price if it was ever offered, because for them it was enough.

Acquisition offers can also trigger unexpected break-ups. Two ambitious founders who struggled together for a decade may feel differently about declining $100 million.

Venture capitalists are also biased to the long game, potentially diverging their interests from founders'. For example, Allectus Capital probably doubled their money on Waddle in a year but lost a bigger chance that might have returned their entire fund.

With demand for Aussie start-ups rising, founders will increasingly ponder whether to sell. The hype around "unicorns" places enormous social pressure on founders to pass up life-changing money and continue their pursuit of a low-probability billion-dollar windfall.

It is quite possible that converting their paper wealth into real cash may have delivered more happiness to the Waddle founders than spending another seven years striving for more.

Luckily for society there are unreasonable founders who are fixated on building unicorns and beating the odds. This is the domain of those few who, like true believers in any religion, feel the mission is more important than the money.

Adir Shiffman is executive chairman of Catapult Sports and a serial investor and entrepreneur.

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used to a bigger bill rise than the CPI, that's for sure", he said.

Thor Essman, CEO at the cloud transformation company Versent, identified another reason why the cost of hiring technology workers is rocketing, however.

Advances in software "tooling" – the applications that help developers build software, and which help development operations staff deploy and maintain that software in the cloud – meant that software companies no longer need as many junior developers and "devops" staff as they once did.

Much of the grunt work, he said, had been automated by tooling, and Versent now needed only four or five people for jobs that once needed 10 people. The catch was that those four or five people tended to be more senior, and such people had become hard to find during the pandemic.

While wages had gone up by a median of 30 per cent this past year, those of workers with skills in security, data and the cloud had gone up by much more, he said.

"The challenge is security, data and cloud, with the fourth one being software development. Those are the core skills you have to have to do anything in business these days. Everyone wants people with those skills, so they've become subject to supply and demand."

Even before the pandemic, there was a shortage of people with those skills, but now with the border closures "there is a shortage of adding to that supply, adding to the cost of labour".

"But given how well Australia has fared during the pandemic, I'm predicting quite a surge of immigration if the government will allow it."

At the employee management software company Nimbus, it is not just new hires who are 40 per cent more expensive, said chief executive Grant Custance. Existing staff are, also.

"New hires and existing staff are all on the same level. These jobs are on Seek, these jobs are on LinkedIn. Everyone knows what's going on. It wouldn't go down too well to pay new hires more," he said.

And it was not just how much Nimbus has to pay staff that had changed since the pandemic began. How the company went about hiring had completely changed, too, Mr Custance said.

Where Nimbus used to rely on word-of-mouth to find new staff, that source had "completely dried up" now.

Instead, Nimbus had begun to aggressively recruit university students before they graduate, and mentoring them to bring them up to the more senior levels that were more in demand.

"Young graduates aren't exactly hitting the ground running, producing good software on day one. It's a process," he said.

Professor Marek Kowalkiewicz, founding director at the Centre for the Digital Economy at Queensland University of Technology, said the inability to attract very senior technologists to Australia has become a huge problem, one that was made far worse when the government announced that the "global talent" visa, designed to attract top experts and entrepreneurs, would be cut from 15,000 places this financial year, to 11,000 places next year.

"With the visa cuts, it's going to be far harder to build a deeper tech capability in Australia. It signals to the world that we don't care about bringing global talent to this country. It's a crushing blow to those of us that are trying to develop technical talent here," he said.