

Stop talking about the future of work

Workplace disruption is here
so why aren't we acting on it?
This is what Australia and
New Zealand need to do.

NOW



Building a better
working world

“

I think it is really important that the discussion about ‘work of the future’, which technically could be renamed ‘work of the now’, isn’t all doom and gloom. We should view this as an opportunity to introduce and co-design change that benefits people and communities.

Emma Hogan, NSW Public Service Commissioner

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The background of the image is a high-angle, night-time view of a city skyline, with numerous skyscrapers and buildings illuminated with warm yellow and white lights. Overlaid on this is a large, glowing, abstract structure composed of many thin, white, curved lines that form a complex, spherical or dome-like shape. The lines are more densely packed in some areas, creating a grid-like pattern. The overall color palette is dominated by the cool blues and purples of the night sky, contrasted with the warm yellows of the city lights and the bright white of the glowing structure. There are also some faint, semi-transparent circular shapes in the sky, possibly representing orbits or data points.

Rising above the noise

When an organisation wants to know who it should hire in three years' time, where do they turn?

When they want to invest in retraining, how do they know what skills to invest in?

When an employee wants to know if their role will become redundant through technological disruption, where does their research start?

When government needs data on national upheavals in the mining, education or financial sectors, where is it housed?

There are two answers: everywhere and nowhere.

The result is that while we are drowning in a sea of noise about the 'future of work', real solutions to actual workplace questions are thin on the ground.

In a series of 34 executive conversations and over 2000 survey interviews with employers and workers across Australia and New Zealand's largest organisations, EY found that change at the organisational level is accelerating through investment in AI, blockchain and machine learning. In stark contrast, complacency or confusion pervades both upper levels of business and government as well as the broader workforce.

The impact is real. Because we have no centralised repository for data on a changing workforce, we have no economy-wide view of the roles that will thrive, those that will change and those that will become redundant. It means that learning and development (L&D) programs still focus on the roles of today and yesterday - not tomorrow.

In the face of task and role redundancy, our research has found that the cost of misplaced L&D spend by organisations in Australia is around A\$4 billion from a total estimated L&D of \$12 billion. In New Zealand, the equivalent numbers are NZ\$0.25 billion misdirected from a total estimated investment of NZ\$1.5 billion.

At the centre of our findings is the realisation that the current approach to skilling people is not meeting rapidly changing current needs and is certainly not future fit. It's clear we need to move the needle from talking to doing. In an increasingly uncertain economic climate, with job security and unemployment looking ever shakier, the challenges will only grow.

To meet those challenges, EY is calling for:

- a. The Australian and New Zealand departments of education, jobs, business and productivity to develop reporting, insights and guidance on how jobs will change and what skills are needed to be future-ready. This will form a one-stop shop for all workers, employers and educators who are seeking the crucial, real-time information that is currently lacking.
- b. Organisations to work quickly to build the transition foundations they need to adapt to changing skills and roles. This requires focus on a learning culture, career pathways, skills planning, communication about the future and employee engagement with technology.
- c. The education ecosystem (institutions, organisations, providers) needs to work together to offer agile, adaptable offerings so that continuous, on-demand and self-directed learning becomes the new normal.

In this report we focus on the way technology is reshaping work. However we must integrate this insight with a broader understanding of the important influences of a globalising world, unprecedented slowing of growth, ageing across the working age population globally and an uncertain political and economic outlook. These, along with technology, are reshaping both labour supply and demand, and the content, structure and location of work.

Uncomfortable

truths

EY research with employers across Australia and New Zealand found that change will be profound in the near future. These leaders are forecasting significant reshaping of their workforce over the next three years: 11% of jobs in their organisation will be redundant over the next three years; 31% say technology will change the nature of roles, triggering task redundancy; and new jobs will make up 13% of the roles available.

These are real job outcomes, but despite the mounting evidence that technology will change our work, employees are overwhelmingly complacent about preparing for this future.

Employers report investment in future readiness, but their workers are not experiencing or engaging with it. Is their action misdirected? Or do we need to face this disconnect and resolve it?

01 | **The tipping point of technology-augmented roles is near**

Fifty-four percent of employers are forecasting investment in AI over the next three years compared to 24% over the past three years. This is an important leading indicator of accelerating momentum towards job disruption, including role and task redundancy.

02 | **Complacency is rife and needs to be unlocked**

Sixty percent of workers have given little to no consideration to the impact of digital technology on their job. Most people believe the digital impact on their jobs over the next three years will be much the same as their experience over the last three.

03 | **Workforce supply and demand is heading into uncharted territory**

On balance, more employers (46%) expect a decline in their domestic workforce in the next three years compared to a growth in the domestic workforce (39%). The scale of this supply and demand fluctuation will not be confined to one industry or sector, and workforce mobility across sectors is already underway.

04 | **Responses are immature and inertia abounds**

Only 56% of employers report that they understand the capacity and capabilities their workforce will need to deliver work in the future. Sixty-three percent are still in the early stages of developing their workforce planning capability to effectively forecast future skills requirements.

05 | **Over-reliance on the market by leaders**

Sixty-one percent of employers believe the market will deliver them the capabilities they require - despite the fact that numerous digital skills are already in chronic under-supply against accelerating demand.

06 | **Workers and leaders don't agree on the current state**

Ninety-one percent of employers believe they are providing support for workers to adapt to the coming change - but 43% of workers don't agree.

07 | **Leaders are paralysed by complexity and ambiguity**

Leaders say uncertainty around when and how digital technology will hit their organisation is preventing them from proactively responding. They are waiting for something to happen.

08 | **L&D strategies are not preparing us for needed skills**

Our research suggests that around A\$4 billion is lost in misdirected L&D in Australia and NZ\$0.25 billion lost in New Zealand, crucial funds that should be used for future upskilling.



Getting a grip on (the new) reality



While strategically we know how to go about the actual implementation and execution of practical actions, no one's really cracked it. I think the organisations that crack this will be the ones that will be successful.

Senior Executive, Financial Services Organisation

We know emerging technologies will create job and task redundancies for employees in Australia and New Zealand. We know we need to change. But the problems, and opportunities, don't lie somewhere off in the distance. They are here. In shifting the focus and rhetoric from job losses to proactively managing the transition to new ways of working, there is an opportunity to emerge economically stronger, as individuals, as organisations, and as nations.

Introduction

Almost everyone has heard about the 'future of work'. That the bots are coming to take our jobs, that digital automation will deliver the type of productivity uplift last seen in the early '90s when a PC appeared on every desk causing widespread redundancies. And while that is a simplistic and overly pessimistic view, there is a pressing need for national action.

Because for perhaps the first time in history, we have enough knowledge to avoid the socio-economic consequences for especially vulnerable parts of our labour market - provided we act on it.

Our report traces the reasons why the response to impending workforce issues and repercussions on people is riddled with complacency. It then looks at the opportunities available to organisations that understand what their future workforce needs will be and upskill appropriately, through progressive approaches to learning.

We outline examples of our evidence-based work with organisations that have provided a clear map of current and coming skills as well as a pathway to their future employment landscape. The report ends with recommendations for how Australia and New Zealand can take concrete steps to address looming workplace disruption.

Optimism bias

Employees in Australia and New Zealand are over-confident about their future employability. Through decades of economic growth, with few signals from their employers and limited guidance from government, EY research found that awareness of what is pending and comprehension of what it means was not prevalent. Only 38% of workers have thought to any great extent about the impact of technology on their employment opportunities - and most of these are people with higher qualifications.

Sixty percent of all workers are optimistic and confident that digital technology will have a largely beneficial impact on their jobs over the next three to five years. Just 11% feel negative and the remainder are ambivalent. Those feeling positive are more likely to be between 18-34 years of age and tertiary educated. This group believe that the wave of technological change has already broken over the workplace.

Our tendency is to overestimate the likelihood of positive events happening to us, and to underestimate the likelihood of negative events: "Jobs will be disrupted or displaced, but it won't be mine." Employees are more concerned about digital technology reducing employment opportunities for the older (61%) and emerging generations (52%) than they are about themselves. Only 37% think there is a risk to their own future.

There is, however, a subset of workers who are more pessimistic about their employment outlook. Forty-two percent of those with their highest qualification at year 12 or below and in lower-skilled jobs recognise they are most at risk from immediate redundancies. They also report lacking the necessary information, access to resources and support to act.

We can learn from our experience through previous cycles of sector disruption (e.g. manufacturing) where large numbers of workers were disproportionately affected, in preparing for cross-sector disruption over the coming years. Similar to those at most immediate risk today, these workers were often older, with skill sets that were no longer needed in adjacent markets and, as a consequence, were consigned to early retirement or long-term unemployment.

We can avoid a more pervasive, new generation of permanently displaced or disrupted workers if we invest in understanding the emerging employment landscape and engage workers and industry in proactively preparing for the future.

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I think the biggest impact is those entry level jobs... not being replaced by anything.

Senior Executive, Property Sector

Focussing on future skills now

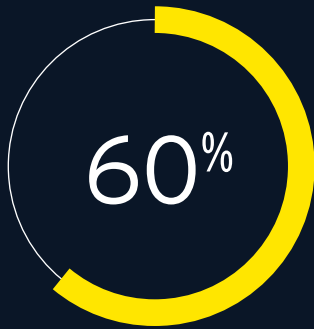
Most business and public sector leaders recognise their workforces will need different and often higher-level skills to utilise new technologies and become digitally literate.

Contrary to the understanding among workers, employers are investing at a greater rate in emerging technologies than they have over the past three years. For example, in the next three years the proportion of organisations prioritising investment in AI is expected to double, leaping from 24% to 54%, the investment in blockchain will quadruple while robotic process automation (RPA) is up by a third.

Leaders are starting to prepare their people for the future. Nearly a quarter (24%) of employers have articulated to their people how jobs will actually change and just under half (47%) of employers say they can demonstrate how digital technology will improve jobs.

Untapped opportunities also emerged through our research. While two-thirds of employers have built technology change into their mainstream strategies, the majority don't understand the workforce capabilities they will need in the future to support these emerging technology investments.

As one research respondent noted, this is not always about workforce reduction but more often about identifying what future capabilities are needed and where to find them. The obvious question then becomes: what capability must we invest in now?

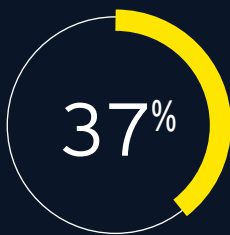


feel positive about their future employment opportunities in the light of technology changes

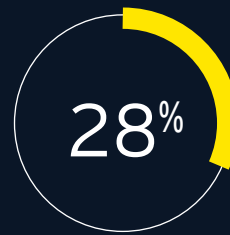
3 in 5

employees have not thought about the impact of digital technology on their future employment opportunities

I am concerned about technology reducing my employment opportunities...



workers in Australia



workers in New Zealand

Attitudes toward technology's impact on jobs are influenced by age, career stage and education. This data helps us pinpoint the focus of our investment for the future.

The challenge is not insurmountable. It's time to invest in more sophisticated approaches to workforce intelligence at the organisational and industry levels to answer questions such as:

- ▶ What capabilities are needed?
- ▶ Where are they in the organisation?
- ▶ Which roles are more likely to be transformed in the future?
- ▶ Which roles won't change and how will they form part of the strategy?
- ▶ What employment arrangements will support the least disruptive and most cost-effective transition to the workforce of the future?
- ▶ How can we best engage our people in taking up the challenge of maintaining their employability?

Employers must have access to reliable external data that forecasts the impact of technology and other forces on job and task redundancy, as well as the available supply of relevantly skilled labour into the future. Without this their efforts to prepare their workforces for the future will be, at best, holding a finger in the wind.

Cutting the L&D waste

There is also a productivity dividend to effective learning and skills development. Organisations currently believe their L&D needs will increase by 19% over the next three years, and yet billions are being wasted on misdirected L&D.

Our research suggests Australian organisations are losing up to A\$4 billion per year in L&D investment from an approximate investment of A\$12 billion. In New Zealand, the equivalent numbers are NZ\$0.25 billion misdirected from a approximate NZ\$1.5 billion. The investment is focussed on compliance and developing skills that are relevant today, rather than building skills for tomorrow.

This is due to a high level of investment among employers but low levels of participation in work-based learning by employees. This indicates the

significant challenge we face in resetting the learning culture to one where L&D opportunities are valued and actively sought after.

This learning investment finding is reflected for Australia in the 2016/17 ABS Survey of Work-Related Training and Adult Learning¹ that found "four in ten (40.9%) Australians aged 15-74 years participated in formal and/or non-formal learning in 2016-17. Participation has decreased since the last survey in 2013 (46.4%) and since 2005 (48.9%)." The eight percentage point drop in learning participation clearly sets out the magnitude of the challenge. Similar declines in education engagement are found in New Zealand where the proportion of people aged 20-24 engaged in education has decreased from 31.8% (2012) to 24.3% (2018)².

The productivity dividend is available not just by equipping people to more effectively deploy technologies but also in transforming our national approach to skilling across working life. Organisations currently believe their L&D needs will increase by 19% over the next three years, which could be covered within existing allocations if the billions being wasted on misdirected L&D was more effectively targeted.

EY's University of the Future paper (2018)³ described a future scenario of continuous learning for all and emphasised the collective responsibility of education institutions, employers and government to create an engaged learning population. To achieve ongoing, adaptive and relevant learning, we need to rethink our entire approach to L&D at work.

In this sense, future-focused L&D will deliver:

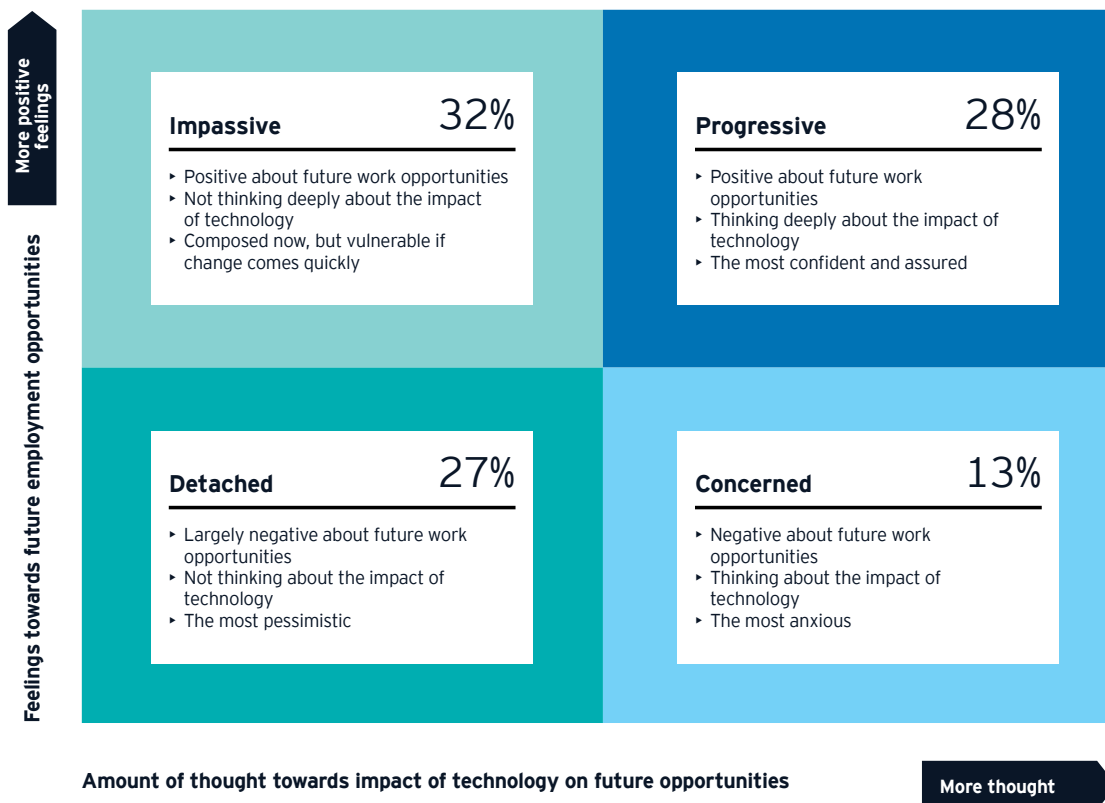
- ▶ **A continuous learning culture:** Invest in building a learning culture which enables continuous learning through recognition, reward and space to learn, in an environment where people at every level model and celebrate learning as integral to performance.
- ▶ **Dedicated and prioritised time:** Allocate time for learning in the working week, to reinforce the priority the organisation gives to skill development and to break down the time constraints people

report as the main barrier to their uptake of learning opportunities.

- ▶ **Relevant content, readily accessible:** Curate content and guide learners to the right skills, allowing people to find learning opportunities that best support them to develop future-facing capabilities.
- ▶ **Functional and applicable training:** Create coherent pathways leading learners into a continuous cycle of applying learning back in the workplace. Much of our future learning will not be in the classroom, but on the job in a purposeful and collaborative learning environment.

- ▶ **Short and intensive skill development:** Invest in micro delivery that upgrades skills through short, sharp bursts of learning and reinforcement delivered just-in-time for their immediate application.
- ▶ **Balance between now and next:** Learn and evolve by constantly monitoring the impact of L&D investment to evolve strategy and improve learning outcomes. Balance the L&D budget between compliance-based training, learning for today and learning for the future.

Employee attitudes to technology changing their employability [Figure 1]



Reskilling and role transitions

Transitioning employees into new roles takes considerable energy and investment, but it can also be less costly and disruptive than letting people go and recruiting new talent. However, when it comes to preparing for the future, only 8% of leaders say skilling their people is their number one priority. This is a fundamental issue for organisations at a micro level and the Australian and New Zealand economies more broadly.

Around one in two employers and employees say that organisations are adequately supporting people to adapt their skills so they can maintain their future value to the business. The question then becomes: which employer are you? Are progressive organisations extracting the full value of their foresight, and protecting it? What is the medium-term revenue and profit impact of workers increasingly at risk of skills redundancy and reduced employability - for the organisation and the broader economic environment?

Even where organisations are trying to support their workforces to prepare for future roles, employers may be perceiving an inflated sense of the success of these initiatives.

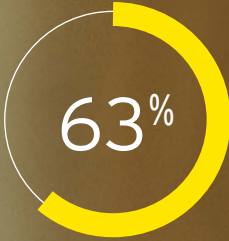
While 53% of employers say they have advised employees on developing the skills they need to help with career progression, only 25% of employees say this is their experience. Similarly, 45% of employers say they are encouraging employees

to seek informal training in future skills outside of work, while only 19% of employees have actually experienced this encouragement.

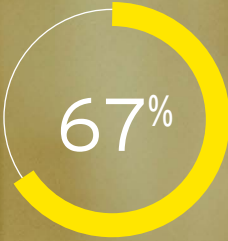
Considering the increase in predicted investment in emerging technology, and the recognition of employers that investment in capability is essential, more needs to be done so that we can: agree on required future skills by sector; select the priority skills; rapidly build learning approaches to develop those skills; and implement workforce and talent strategies to manage people through this change.

If rapid, micro-learning is to become part of our learning future, there is an opportunity for education institutions and employers to review how unbundled units of study could be recognised by providers. It would mean that re-skilled workers can more easily be identified, and potentially transitioned into Vocational and Higher Education through diverse access points.

Employers in Australia and New Zealand



struggling to forecast
future workforce
requirements

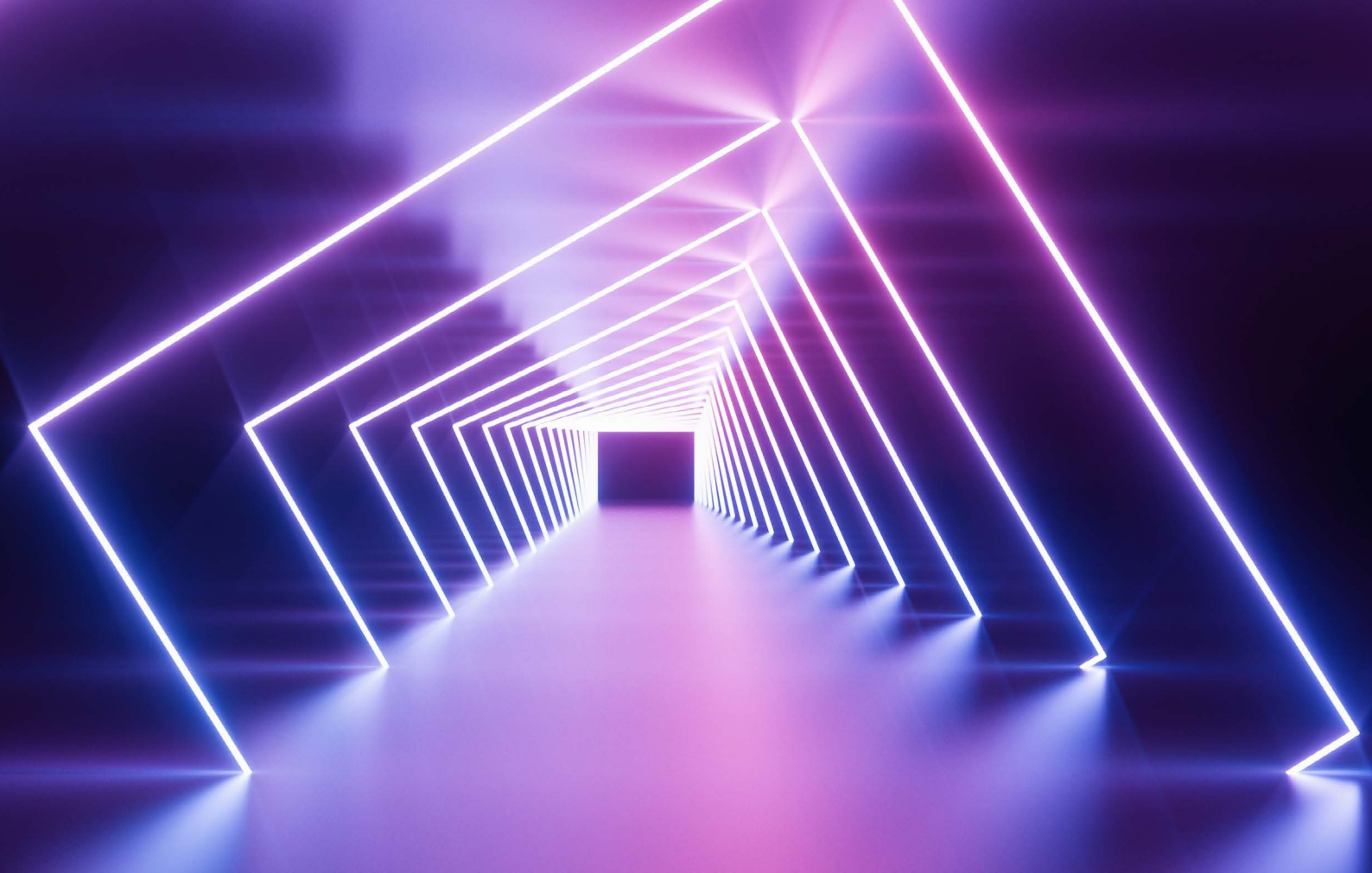


unable to transition
employees to new ways
of working

2
IN
3

only now establishing
effective reskilling and
upskilling programs





Employers' priorities when preparing their organisations for the future

When we asked leaders what their priorities were to prepare their organisations for the future, among the top five were:

01 | **Developing** future oriented leadership capability

02 | **Designing** organisations to respond to technology driven change

03 | **Skilling** people for the future

All while investment in...

AI
doubles

RPA
up a third

Blockchain
quadruples

75%

75% of employers expect technology to improve the client experience in the next three years

“

We're at a pivotal time as a society where the traditional model of education and working and retirement is fundamentally flawed for the future. Organisations and individuals have a responsibility to think about how we create opportunities for the future, and for work of the future, that enables people to contribute in a work sense, in a meaningful way, well beyond the traditional retirement age or the traditional model of learn, earn and retire.

Peter Taylor, GM People Capability & Safety,
New Zealand Post



Cracking the code

The challenge we face around data is not that we don't have it, but that we have too much and we are not collectively skilled in drawing insights out of it. Industry groups, businesses and governments have an obligation to help people understand the realities of the future workplace and embrace the opportunities that it presents, including that technology won't spell the death of all jobs.

A strong evidence-based framework will provide employers and workers with realistic scenarios for Australia and New Zealand's future employment landscape to drive proactive responses at all levels. In the absence of empirical evidence, investment in learning is misdirected, and planning for workforce transition is difficult as employers draw data from multiple sources.

Yet solutions to these seemingly overwhelming problems can be deployed, as EY work with both the Minerals Council of Australia and SkillsFuture in Singapore shows.

A data-driven approach in the mining sector

Aiming to build a more globally competitive sector, the Minerals Council of Australia (MCA) worked with EY to create an interactive skills map that allows industry participants to identify the capabilities required by future roles.

The MCA work developed a Current Skills Snapshot⁴ formed from broad census data, broken down into industry-specific technical skills considered 'important' for each occupation in the sector (see for example Figure 2).

An Innovation Study on the impacts of digital and technological innovation across the minerals industry value chain was also conducted. In conjunction with the Current Skills Snapshot, mapping was used to predict the future composition of the workforce, allowing analysis of the most prevalent future skills in the industry along with those skills that are likely to both increase and decrease in demand in the future.

The research found that skills in demand include: system evaluation and analysis, mathematics, active listening, instructing, data analysis, data and digital literacy, and judgement and decision-making.

And that skills with declining demand include: vehicle operations, materials extraction, operations and control, equipment maintenance and blast-hole drilling

An approach that could be applied nationally or by sector, this work has enabled the MCA to better understand the future skills required within their workforce, meaning industry stakeholders can now strategically plan for their future workforce and skills.

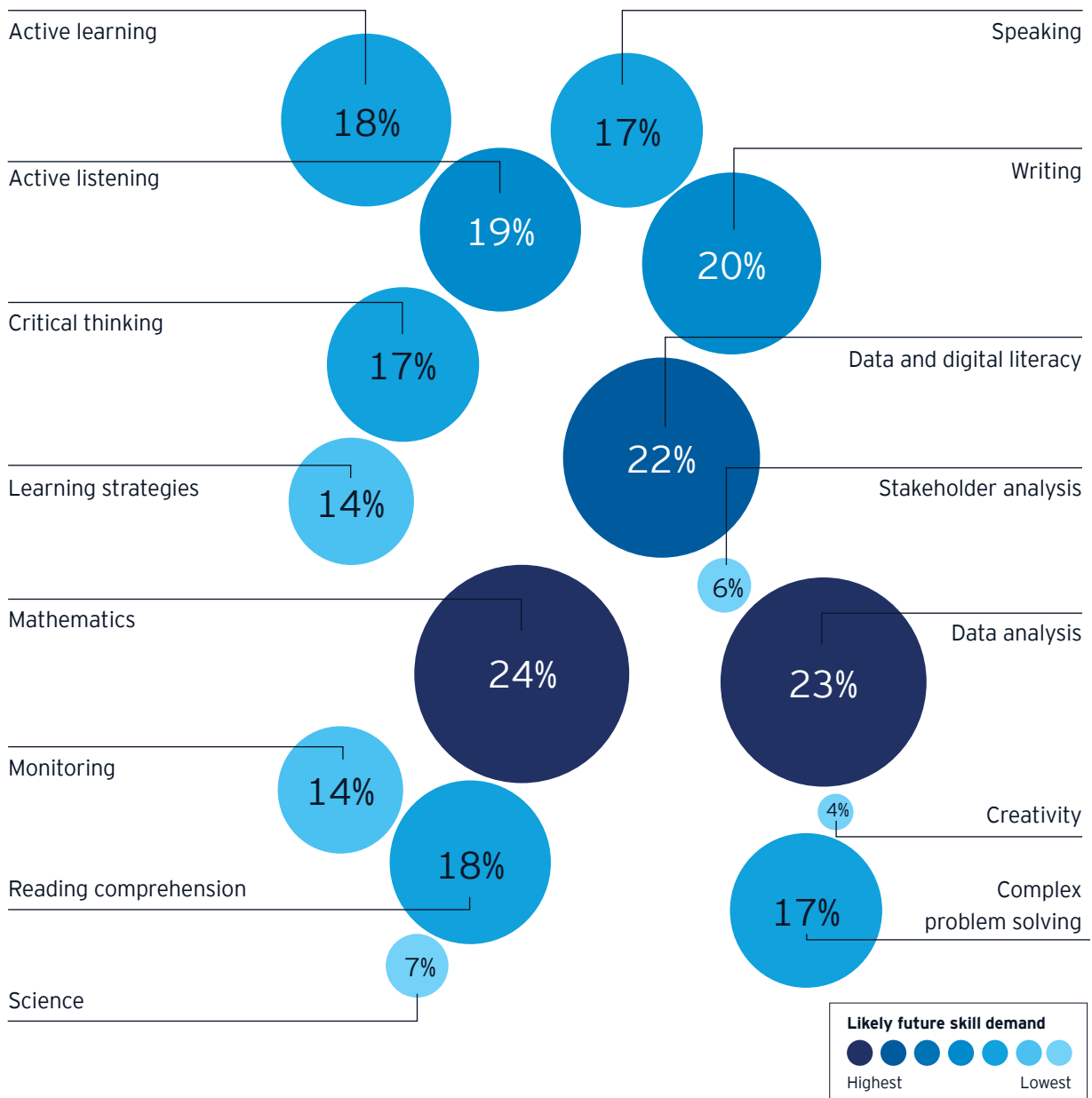
It also gives industry insights into addressing questions around what emerging technology can and cannot do, as well as how we look at not just content learning but soft skills learning.

This type of analysis could also allow policymakers to adjust their settings using data-driven evidence.

Example Skills Map Snapshot [Figure 2]

ANZSCO Code	223311
ANZSCO Occupation Unit-Group	Training and Development Professionals
Occupation Impact Category	Enhanced
ASCED (Field of Education) Label	Business and management
ANZSCO Skill Level Label	Bachelor or higher education
Qualification Experience equivalence (years)	5

Skills prevalence as proportion of future workforce (change %)



Driving wages growth by reskilling Singapore's workforce

Since 2015, Singapore has been mapping how jobs across all industries will change over a two-year horizon - with the information constantly refreshed to stay current.

This is the foundation for SkillsFuture⁵ that EY worked with the Singaporean government in developing. It is a national movement to provide Singaporeans with the opportunities to develop the right skills to succeed in the workforce.

Workers can plug their job into a digital portal on the SkillsFuture site to find out how that job will change in the next two years, what skills they will need to stay in that job, and the salary increase they can expect. They can then find relevant training, including professional conversion programs and skills upgrades, with people encouraged to "earn and learn".

With every working age Singaporean given S\$500 credit to spend on skills training, in 2018, the site received 7.6 million user visits.

Employers are now starting to co-fund learning through SkillsFuture to incentivise workers to learn future skills outside of work.

With success measured through productivity and wages growth uplift, SkillsFuture works by:

- ▶ Helping individuals make well-informed choices in education, training and careers
- ▶ Developing an integrated high-quality system of education and training that responds to constantly evolving needs
- ▶ Promoting employer recognition and career development based on skills and mastery
- ▶ Fostering a culture that supports and celebrates lifelong learning

Singapore is now looking to understand and assess the impact of new skills on unemployment and productivity to continually improve the effectiveness of SkillsFuture.

Learnings for Australia and New Zealand

▶ **Ecosystem approach** - SkillsFuture is a whole-of-economy approach that works with the cooperation of:

- ▶ Government - industry agencies and regulators are all on board
- ▶ Industry - skills frameworks have been developed in 10 sectors by engaging with the top brands and representatives in each industry as well as unions
- ▶ Education and training providers - were engaged quickly to develop a future skills curriculum and continue to be briefed as the skills frameworks are refreshed

▶ **Information** - Workers can easily find out what will happen to their roles in the next three years and the skills they need to remain relevant. Organisations have sector skills frameworks to help them with workforce planning.

▶ **Incentives** - Workers receive learning credits and are shown the higher salaries they can earn if they retrain. Organisations are only awarded government contracts if they are reskilling their workforce.

Given the unprecedented speed of skills evolution, government is compelled to take new approaches. For example, could education tax credits be replaced or augmented by a bonus payment for undertaking an accredited training module?

There is also an argument for amending the deductibility criteria for education and professional development which presently needs to demonstrate relevance to current work. For us to be successful in reskilling our workforces, incentives need to be applied to adjacent or new skills for emerging roles. For example, a customer service agent should be able to claim deductions for a digital literacy qualification. Taking this further, should all certified modules be deductible in a world where there is no certainty? Is the requirement for a connection to current work counterproductive when the way we work is changing so rapidly?



TIME TO STOP TALKING



The work that EY has done with the MCA highlights the gap between the disruption many foresee, and what organisations and individuals understand about the issue. Consequently, employers must tell people what's really going on. But to do this they need a vision of the future, a coherent technology strategy for the whole organisation and a related people plan - with new structures, roles and reskilling opportunities - to support the change to digitalised operations.

As a vital first step, we need all key players to have a common grasp of the problem. That includes employers first understanding the issue, and second, understanding what they might do about it. Our research has shown a spectrum of understanding across employers, and differences in employer

perception of readiness and employee experience. In much the same way that public health campaigns respond to the current societal challenges and individual action, do we need a campaign that generates urgency and community change around skill development?

While government, employers and employees must take on the responsibility for developing and sustaining the necessary responses, federal governments need to play a cornerstone role. Currently, Australian and New Zealand workers have to self-determine what skills will make them employable in the future. By contrast, the SkillsFuture approach in Singapore - as well as the MCA's skills mapping work - offers a clear pathway to support employees in reskilling and upskilling.

“

Most governments' digital policy agendas are concentrated on creating economic value via technology. But societies are not only about economic performance. Currently, no government is fully focused on systemically addressing the important social, cultural, moral and ethical issues that emerge as a result of technology advancement.

Uschi Schreiber, EY fellow for Digital Society and Innovation




...


AND


START

DOING

To lead the change, EY is proposing three recommendations:

-  The Australian and New Zealand departments of education, jobs, business and productivity develop reporting, insights and guidance on how jobs will change and what skills are needed to be future-ready. This will form a one-stop shop for all workers, employers and educators who are seeking crucial, real-time information that is currently lacking.

-  Organisations to work quickly to build the transition foundations they need to adapt to changing skills and roles. This requires focus on a learning culture, career pathways, skills planning, communication about the future and employee engagement with technology.

-  The education ecosystem (institutions, organisations, providers) needs to work together to offer agile, adaptable offerings so that continuous, on-demand and self-directed learning becomes the new normal.

a This is what the government needs to do

As a way of Australia and New Zealand urgently addressing the lack of data and evidence-based policy, EY is calling for the departments of education, jobs, business and productivity to develop an Integrated Plan for Strategic Futures.

A key outcome of this work will be the development of 'future skills maps', in the vein of the MCA Current Skills Snapshot and Singapore's SkillsFuture. These maps will allow educators, industry, employers

and workers access to data about how roles will change, and the reskilling avenues available when transitioning to new roles.

This initiative would also maintain a focus on collecting, analysing and delivering a national database of skills and career pathways so that industry, government and workers can clearly understand what they need to do to transition.

The departments will need to work together with industry and education representatives to deliver four outcomes:

i

Collect, maintain and analyse the relevant data sets to deliver current and frequent reporting to employers, employees and education institutions on emerging skills and jobs.

- Collect the right sources of labour force data to give an accurate view of supply and demand across sectors, emerging and declining skills.
- Collect global data sets to benchmark comparable overseas skills evolution.
- Construct a publicly available dashboard which helps people determine current skills, future skills and the pathway to transition (for example, "I want to transition out of construction/accountancy/law - what are my options and how do I get there?").
- Assess how the capabilities needed by professions will change, developing programs to stay relevant to current profession or help transition from at risk occupations.

ii

Provide advice as to how education systems can respond to changing skill requirements.

- Work with education institutions and corporates delivering in-house learning and development to pilot, test and refine new approaches to effectively engage people at all levels and career stages in learning.
- Deliver employers and employees transparent data and pathways to new skills/jobs, to help answer the question: "What do I need to learn to be part of that future career?"
- In Australia, work with the review of the Australian Qualification Framework to loosen rules around reskilling, for example through allowing more modular approaches to be recognised.

iii

Provide employers with practical guidance and incentives on how to respond to emerging skill requirements through local and global evidence.

- Develop case studies to illustrate how industries can transition into emerging capabilities and provide insight on what could be done more effectively.
- Provide guiding principles that organisations can use when transitioning to a future workplace.
- Coordinate and streamline the various government programs/funding available to transitioning organisations.

iv

Amplify the successes of those organisations and industries who are addressing future skills transitions effectively.

- Identify workforce strategies that have made actual, demonstrable differences to worker transition and capability, along with outcomes for employment and performance.
- Build a suite of programs based on common themes identified in mature and sophisticated organisations so that others can replicate and learn.
- Provide examples of the evolving worker in different sectors and their skills, capabilities and the learning pathway they engaged in to transition to new jobs.

The government also needs to:

- ▶ **Forecast and plan for the future workforce within its agencies** to inform and promote leading future workforce management practices that can act as a guide to other employers.
- ▶ **Engage the working age population** in the need to take responsibility for managing their employability across working life and promote the resources available to support them.
- ▶ **Convene a review of education and training sector and broader L&D practices** to inform future-fit approaches to skilling the nation's workers.

Finally, government can encourage a nation of continuous learning through:

- ▶ **Reforming tax deductibility rules** to support skills formation for transitioning in a dynamic labour market. We shouldn't constrain support to skills only relevant to current employment when we expect so much employment to change. This rule is a static, when dynamism is needed.
- ▶ **Enhancing tax credits for lower and middle-income earners.** Those most likely to be affected by technology change resulting in task or role redundancy could be given additional support through a tax credit grant top-up for completion of an accredited course/module.

- ▶ **Adding a superannuation contribution supplement to older workers** who complete training. For example, older workers at risk of under employment in the future may value retirement savings top-ups as a powerful incentive.
- ▶ **Extending parental leave entitlements based on micro-credentialling.** We know that disconnecting from the workforce for parenting can be a critical juncture, so supporting learning in this environment is crucial. It may not suit every parent, but the option to support skills development and a connection to (future) employment is worth considering.

b

This is what organisations need to do

Two-thirds of organisations in Australia and New Zealand are still developing their ability to integrate technology and workforce transition. So, organisations need to work fast to:

- ▶ **Communicate to people about how technology is changing the nature of work:** Even if organisations don't have all the answers about how technology will effect work and tasks, they should talk to their people about what is happening across the sector so they have relevant and current information about job evolution.
- ▶ **Integrate technology and people in all planning:** Traditional roles, organisational structures and people processes that fail to reflect the new dynamics of technology in work need to be challenged or discarded. Organisations need to bring together their planning across technology and workforce change so they have a holistic view of the intersections of technology on roles and people.
- ▶ **Give employees clear guidance as to how their role will evolve:** A coherent pathway matched to the individual's career plan, with access to learning or reskilling tools, must be supported by leaders, encouraged by modern performance management, enabled by L&D and built into business as usual.
- ▶ **Redesign the task content of jobs:** Against the potential of emerging technologies, tasks need to be unbundled and assessed as suitable (or not) to be done or augmented by automation or machine learning or blockchain, before being re-bundled into new combinations of human/machine roles.
- ▶ **Reframe what automation means for employees:** Rather than making workers the victims of change, organisations have an important opportunity to give employees agency around automation and role augmentation. Think about rewarding people for removing or automating processes. Empower employees to write their new post-automation job descriptions and, together with managers, rate their competencies against the role. Use those with higher competencies to coach others.
- ▶ **Create a learning culture, where people in organisations are readily able to learn and engaged in the opportunity.** Restructure the working week to build in time and space for learning. Employees in our research cited time and cost as the two main barriers to learning take up. Organisations who build future ready learning into their value proposition will attract and retain the best talent.

c This is what the education ecosystem needs to do

The education ecosystem includes education institutions, employers, providers and workers.

In our research paper, University of the Future (2018) we described a scenario whereby universities standardise and modularise courses for conversion into digital products, improve speed to market, adapt to new learner segments and invest in shared digital “experience platforms”, with harmonised systems, to deliver courses and serve learners in a seamless manner. These evolutions are needed to quickly build an adaptive system of education in which organisations and employers work closely together to deliver reskilling.

Organisations also have a central role in continuous learning. Typically, organisation learning models focus on current, not future roles, and they are unable to respond to the fast pace of technological change. Keeping skills relevant into the future will require a continuing series of capability upgrades. In this environment, the usual learning format of punctuated inputs, delivered randomly when work schedules and training room vacancies allow, won't work. We need to build the ability to learn, so that we are adaptive, agile learners.

In the 21st Century, continuous, on-demand and self-directed learning must become the new normal. We must all learn throughout our careers with activities comprising work and learning becoming part of the working week.

We need to revisit the Why, What and How of learning:

1. **Why I should learn?:** There is no point investing in learning platforms and systems or developing content if people are not taking up the learning available. People must be aware of the imperative of continual learning as the answer to continual change and technological advances. Lifelong learning is essential – not optional – and workers need to take responsibility for their role in learning.

The challenge for organisations is to make the need for learning real and to instil a sense of urgency among their people. If we don't create urgency then:

- ▶ technology will help us work smarter and faster, but we won't be able to make the most of its value because we can't use it effectively; and
- ▶ our jobs will change rapidly, gradually being augmented or replaced. And without new skills, work security and purpose will erode.

2. **What should I learn?:** Most learners don't have sufficient information to decide on what to learn next. They need support and guidance to understand which capabilities will keep them in work.

Government has a role in this, as outlined above, but we also recommend organisations assess the level of change to their required capability and capacity over a three-to-five year outlook and then redirect their L&D spend to provide a balance between skilling for today and for the future.

As a priority, organisations must forecast their future capability needs, using strategic workforce planning based on the timelines around new digital investments. This will allow employers to give people a clear future vision of what to learn to remain employable.

3. **How should I learn?:** Learners need guidance as to how they can acquire new capabilities - and options so they can choose an approach that works for them. People must be given time in the working week and empowered to learn collectively, yet be self-directed, or self-paced. Learning modules need to be right-sized, stackable and designed for different levels of learning.

This is not just about training workers in a different skill set, it's about evolving the way people learn. Traditional L&D organisations are generic and system-oriented. Instead, they must be people-oriented, offering individual pathways that take into account varying levels of motivation, capacity and confidence, as well as learning needs and preferences, work/life constraints and career goals.

Reconsider how the value of learning is measured

Organisations must develop measurement of learning that moves beyond the number of enrolments, completion and people showing up to class, to effectively target and engage people in L&D or monitor and adjust their L&D strategy over time.

Instead, L&D should start measuring the:

- ▶ Value of people helping colleagues to learn - even from failure
- ▶ Value of people's experience - recognition of professional experience
- ▶ Levels of engagement in acquiring future-proof capabilities

Just as digital technology is transforming business, it also lies at the heart of advances in the world of L&D. Data analysis is generating deeper insight into current employees and enabling new approaches to developing talent pools based on underlying capabilities to match current and anticipated needs.

● EY Sweeney research methodology

Online survey distributed to companies of 100+ employees in Australia and New Zealand, all sectors and industries. In-person interviews conducted with c-suite executives and business leaders.

● For any questions...

For any questions on this report, please reach out to our team, we welcome your feedback and comments. For further information, visit:

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● Endnotes

1. Survey of Work-Related Training and Adult Learning (WRTAL), ABS 4234.0, 2016/7, December 2017
2. Young people choose to earn, not learn, Stats NZ Tauranga Aotearoa, June 2018
3. University of the Future, EY, May 2018
4. The Changing Skills Landscape for Miners, MCA/EY, February 2019
5. SkillsFuture Singapore

● The following assumptions were applied to develop the learning and development wastage figures:

- ▶ We assume the productivity uplift as a consequence of learning and development is on revenue not gross profit.
- ▶ The average payback period is 1.5 years to increased productivity, whereas firms with high return receive a benefit in the first year.
- ▶ While we have not analysed the compounding effects of training return, it should be noted that over several years, continued training investment can yield positive returns on a cumulative basis if they are directed to the right learning for the future.

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- ▶ Institute of Finance Professionals New Zealand Inc
- ▶ Institute of Public Administration Australia (ACT)
- ▶ Institute of Public Administration Australia Western Australia
- ▶ New Zealand Private Equity and Venture Capital Association Inc



Authors

Dr Juliet Andrews

Partner
People Advisory Services
Ernst & Young Australia
juliet.andrews@au.ey.com

Louise Rolland

Associate Partner
People Advisory Services
Ernst & Young Australia
louise.rolland@au.ey.com

Andy Gillard

APAC Intelligent
Automation Leader
Ernst & Young Australia
andy.gillard@au.ey.com

Contacts

Jenelle McMaster

Managing Partner,
Oceania Markets
Ernst & Young Australia
jenelle.mcmaster@au.ey.com

Catherine Friday

Managing Partner
Oceania Government and Health Science
Ernst & Young Australia
catherine.friday@au.ey.com

Stephen McKernan

New Zealand Government
and Public Sector Leader
Ernst & Young New Zealand
stephen.mckernan@nz.ey.com

Adam Canwell

Partner
Oceania Workforce Advisory Leader
Ernst & Young Australia
adam.canwell@au.ey.com

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