

Future of Work

Are you equipped to lead your organisation to
thrive in the new realities of work?

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1. Overview

The world of work is being transformed by technological advances such as artificial intelligence (AI), robotics and big data analytics. The scale and pace of transformation is unprecedented, and its impacts are amplified by its interaction with other socio-economic factors such as shifting demographics, globalisation, and the transition to a sustainable, zero carbon economy.

Many opportunities lie ahead for business. These include creating new and better products and services; as well as reconsidering the roles of individuals, organisations and societies at work, in ways that not only create value and boost productivity, but also enable people to thrive in the new realities of work. If the transitions involved are poorly managed, potential risks include widening skills gaps and inequality, and growing uncertainties through increasing job displacement, skills transitions and the casualisation of work. The transitions involved call for urgent, decisive action – both individually and collaboratively – to seize these opportunities and to mitigate potential risks.

Sustainability is increasingly being used as a lens through which business leaders can navigate an increasing volatile, uncertain, complex and ambiguous (VUCA) world - including the Future of Work (FoW). Leading New Zealand businesses that put sustainability at their core are proven to outperform those who do not¹. Businesses that put sustainability at their core, must take responsibility for people as well as planet and profit. This responsibility goes beyond caring for the wellbeing of employees, to managing the broader impacts on society of which they are a part.

This report explains what the term 'Future of Work' (FoW) means, and outlines the key challenges and opportunities facing business. The report sets out key questions to help directors and executive management build oversight of and prepare for the changing nature of work and to prosper by generating inclusive and sustainable growth and development.

2. What is the 'Future of Work'?

The term 'Future of Work (FoW)' is used to describe complex disruptive forces that are interacting over multiple time horizons, and which are changing businesses and the nature of our workforces, workplaces and the way we work (Figure 1). These include:

- the rapid development and uptake of technologies such as artificial intelligence and robotics,
- shifting demographics including an aging and increasingly multicultural workforce,
- globalisation, which included the 'pulls' of increasingly empowered and connected global customers and global talent markets, and
- a just transition to a sustainable, zero carbon economy.

While these shifts will bring challenges for leadership, business models, culture, and the workforce, they also provide the opportunity to create more value realising the full potential of our greatest asset – our people.

¹ https://www.sbc.org.nz/_data/assets/pdf_file/0008/127961/SBC001-Snapshot2017-.pdf, page 19



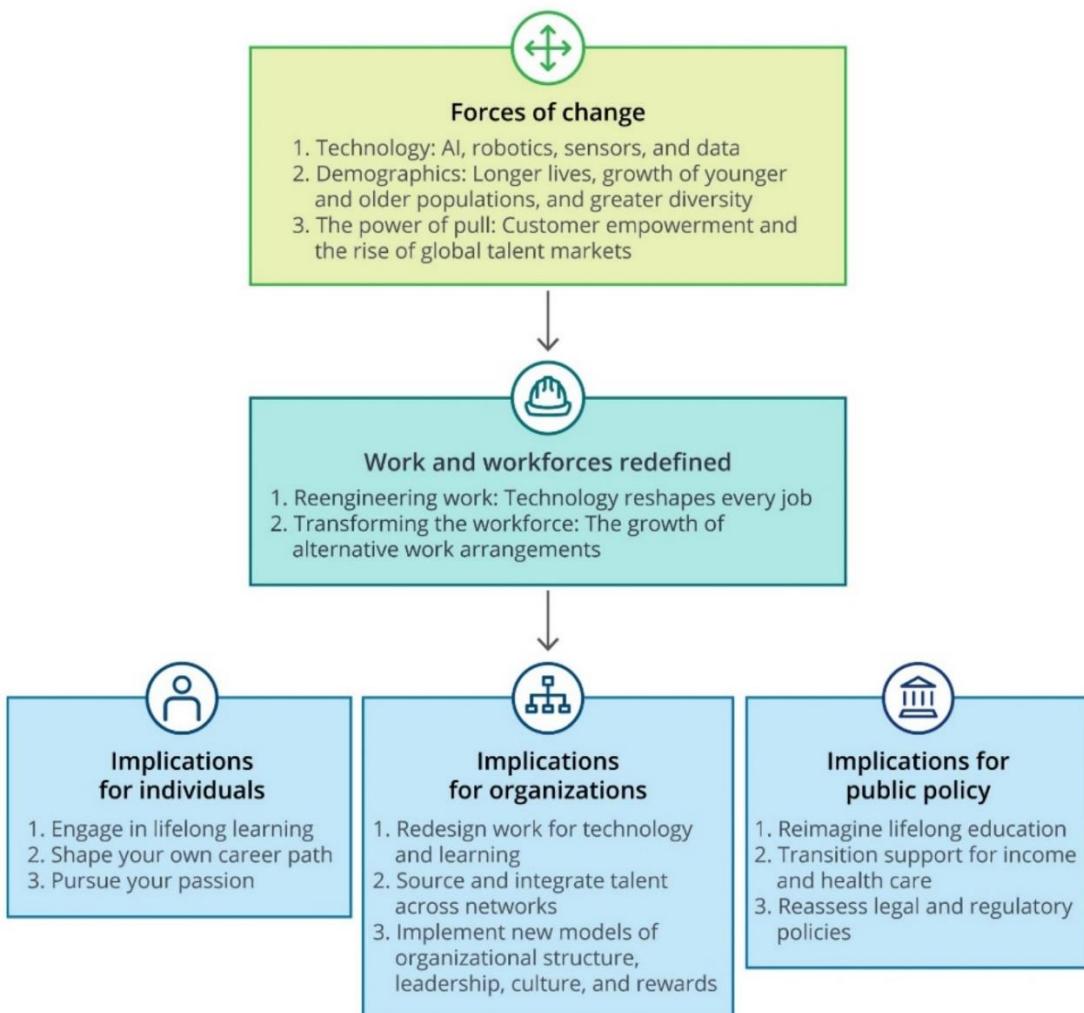


Figure 1. Future of Work – An Overview Source (Deloitte, 2017)²

3. Key risks and opportunities

Rapid technology innovation

The nature of work is being redefined and becoming increasingly automated and augmented by new technologies such as artificial intelligence (AI), robotics, platform technologies (e.g. Uber, AirBnB), big data analytics enabling greater insights into customer behaviour, and blockchain which can enable the wider distribution of data while ensuring anonymity and security.

Disruptive technologies are not a new phenomenon. But while past changes have mainly impacted blue collar jobs, the pace³ and widespread nature of today's emerging technologies

² <https://www2.deloitte.com/insights/us/en/focus/technology-and-the-future-of-work/overview.html>

³ McKinsey estimate the uptake of technology will be 10 times faster than that of the industrial revolution and 300 times the scale.

is unprecedented and is likely to affect all industries in some way. This could dramatically change business models resulting in major disruptions in labour markets.

New jobs will be created, partly or wholly displacing others, while how and where people work will also be transformed. Those people in roles most vulnerable to displacement may be the least equipped to seize the new opportunities. Today's skills will not match the jobs of tomorrow and newly acquired skills may quickly become obsolete. It may also affect female and male workers differently and changing the dynamics of the gender gap.

It's about people - not technology

The potential impact of automation on jobs and skills has been much debated. Recent research by the OECD, CAANZ, and McKinsey indicates that up to 46 per cent of jobs in New Zealand could be 'at risk' from automation by 2030. However, entire jobs are not necessarily at risk, rather the constituent tasks which can be automated. McKinsey estimate that 60 per cent of jobs globally have at least 30 per cent of activities that could be automated.

How likely organisations are to take up automation and AI for example, will depend on the industry. The greatest number of jobs displaced by automation in New Zealand are expected to be in construction, retail, administration, and healthcare and social services (Figure 2). Employers will increasingly value technological, social and emotional, and higher cognitive skills, and require far less manual labour and fewer workers with only basic cognitive skills such as simple data input and processing abilities. Therefore low- and some medium-skill occupations such as labourers, machine operators and drivers and administrators face higher levels of risk, and the most skilled occupations have much lower levels of risk of job displacement.

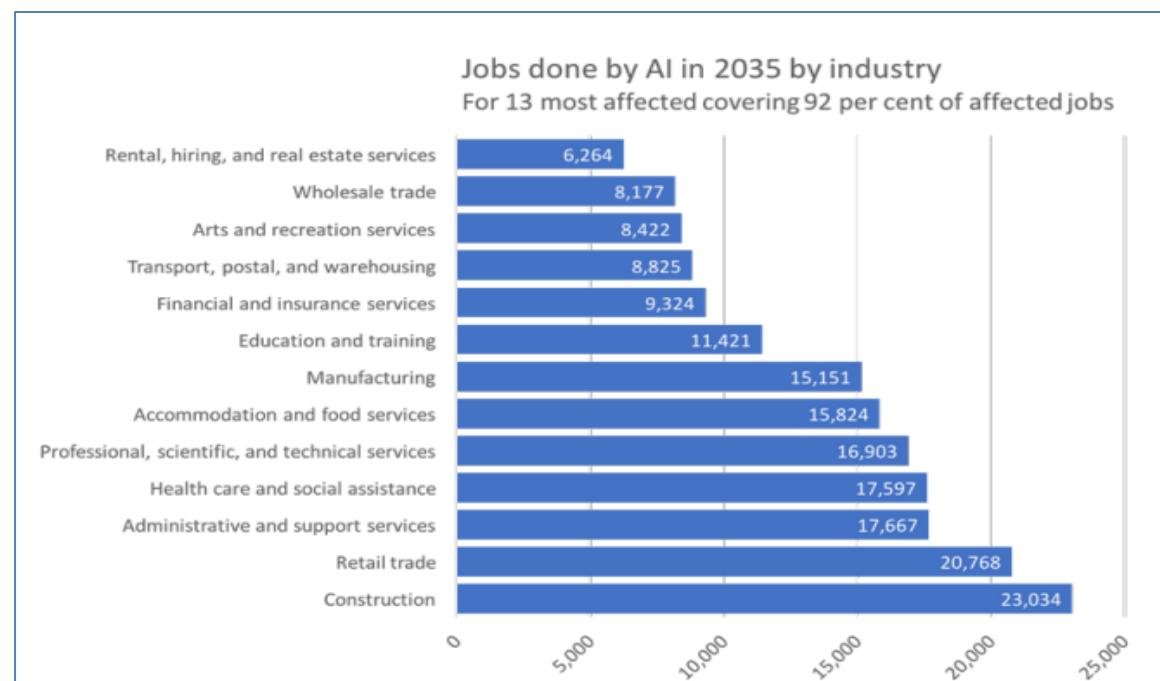


Figure 2. Proportion of Jobs at risk of automation in New Zealand
(Source: McKinsey 2018)

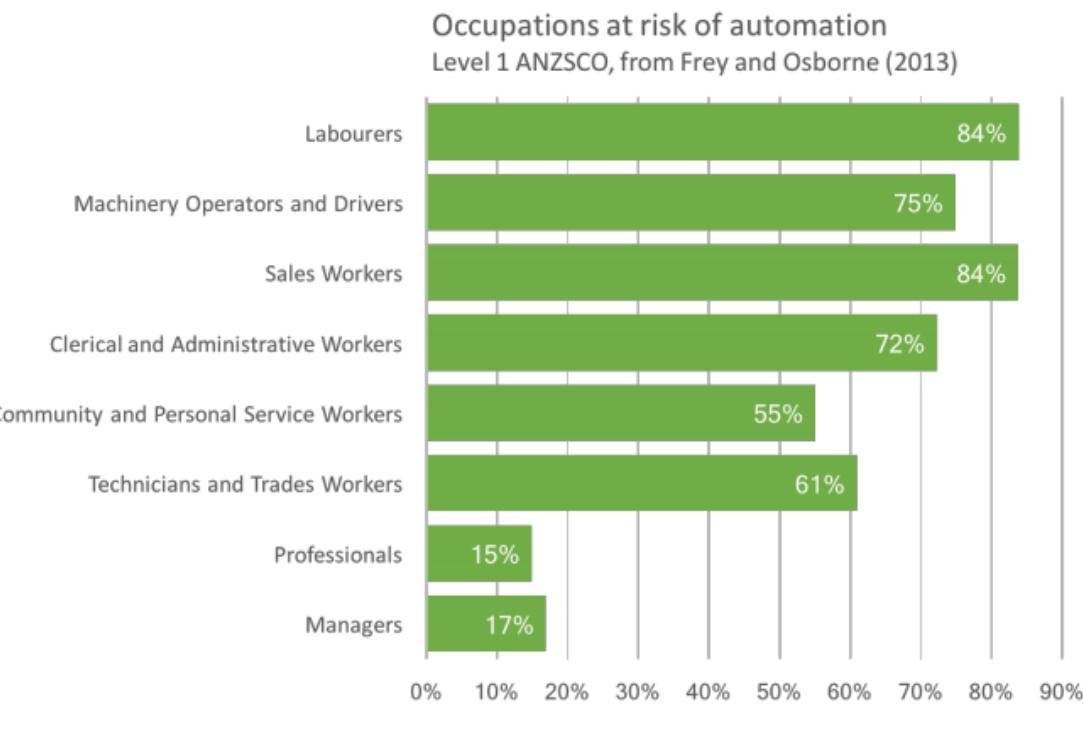


Figure 3. Occupations at risk of automation (Source: Frey and Osbourne 2013)

A reskilling imperative

The type of work we do in the future will require more specialised personnel. A shift to a more “STEMpathetic”⁴ workforce which combines technical knowledge and a broader range of cognitive social skills (figures 4 and 6), is widely anticipated.

Future skills that are likely to grow in prominence include analytical thinking, innovation and active learning. Alongside proficiency in technologies, ‘human’ skills such as creativity, originality and initiative, critical thinking, persuasion and negotiation will be increasingly valued by employers, as will resilience, flexibility, emotional intelligence, and leadership⁵. These skills shifts could pose significant organisational, talent and HR challenges, at a time when competition for talent is profound and current key skills are in short supply.

As technology changes the character of job tasks, business will need to invest in education and training, to ensure workers possess the right skills to adapt to the new realities of work. This will also require a change of mindset and commitment by organisations and workers to invest in lifelong learning. The development of skills pathways – the steps people can take to acquire new skills – will be critical in enabling a smooth transition for businesses and employees.

This places an urgency for organisations to:

- understand how the forces shaping the FoW will disrupt business models, culture, working practices, and the composition of the workforce and individual roles,
- determine current and future skills capabilities and needs, and identify skills gaps,

⁴ The term ‘STEM’ refers to *science, technology, engineering and mathematics*

⁵ <https://www.weforum.org/reports/the-future-of-jobs-report-2018>

- develop workplace programmes to upskill, reskill and support employees through the transitions, with the right skills and support to address current (as a priority) and future skill shortages, mismatches and gaps.

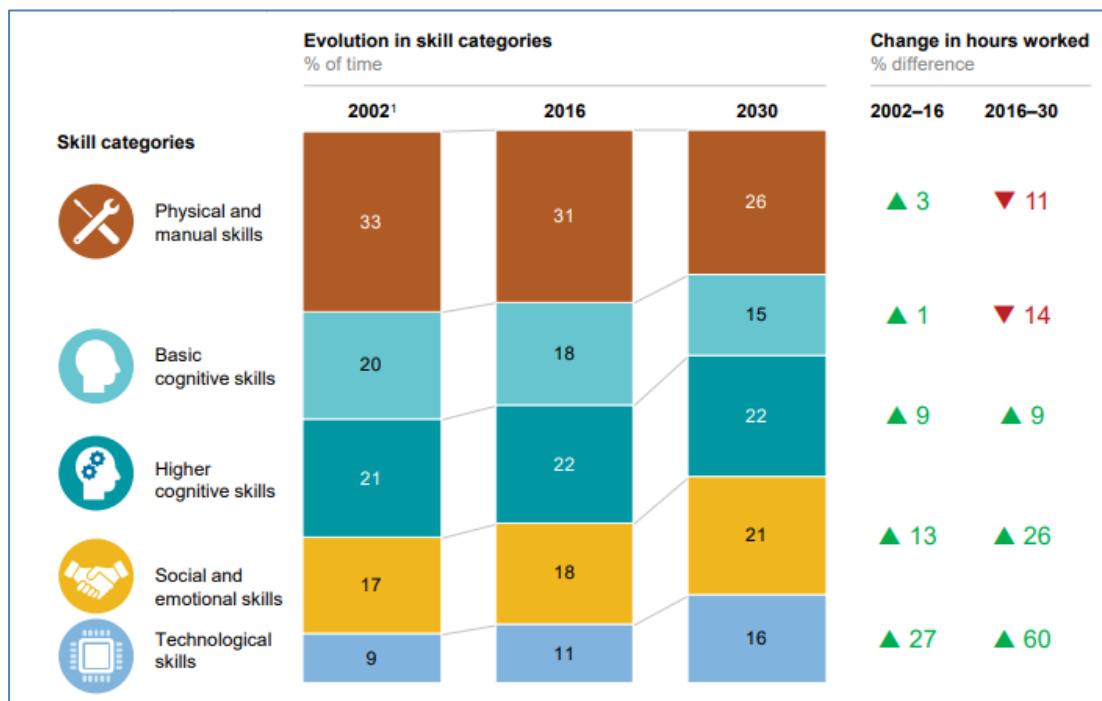


Figure 4. Shifting skill requirement (Source McKinsey, 2018)

Organisations who can master both technical and social skill sets could lead the way in the FoW. People are inherently social creatures and creative problem-solvers. Business leaders can harness these strengths to create fulfilling jobs. This will need a focus on continuous learning and development, which Millennials continue to rate as the No. 1 driver of good jobs.

Growing	Declining
<ol style="list-style-type: none"> 1 Analytical thinking and innovation 2 Active learning and learning strategies 3 Creativity, originality and initiative 4 Technology design and programming 5 Critical thinking and analysis 6 Complex problem-solving 7 Leadership and social influence 8 Emotional intelligence 9 Reasoning, problem-solving and ideation 10 Systems analysis and evaluation 	<ol style="list-style-type: none"> 1 Manual dexterity, endurance and precision 2 Memory, verbal, auditory and spatial abilities 3 Management of financial, material resources 4 Technology installation and maintenance 5 Reading, writing, math and active listening 6 Management of personnel 7 Quality control and safety awareness 8 Coordination and time management 9 Visual, auditory and speech abilities 10 Technology use, monitoring and control

Figure 5. 2022 Skills Outlook (Source: Future of Jobs Report 2018, World Economic Forum)

For some organisations the FoW is already here. Organisations such as Ports of Auckland, Spark, BNZ, Fonterra, SkyCity and Z Energy are leading the way in assessing the impacts of technology on existing roles, to identify future skills needs and develop workforce strategies to upskill, reskill and transition their people with the right skills and support, either within or out of the organisation.



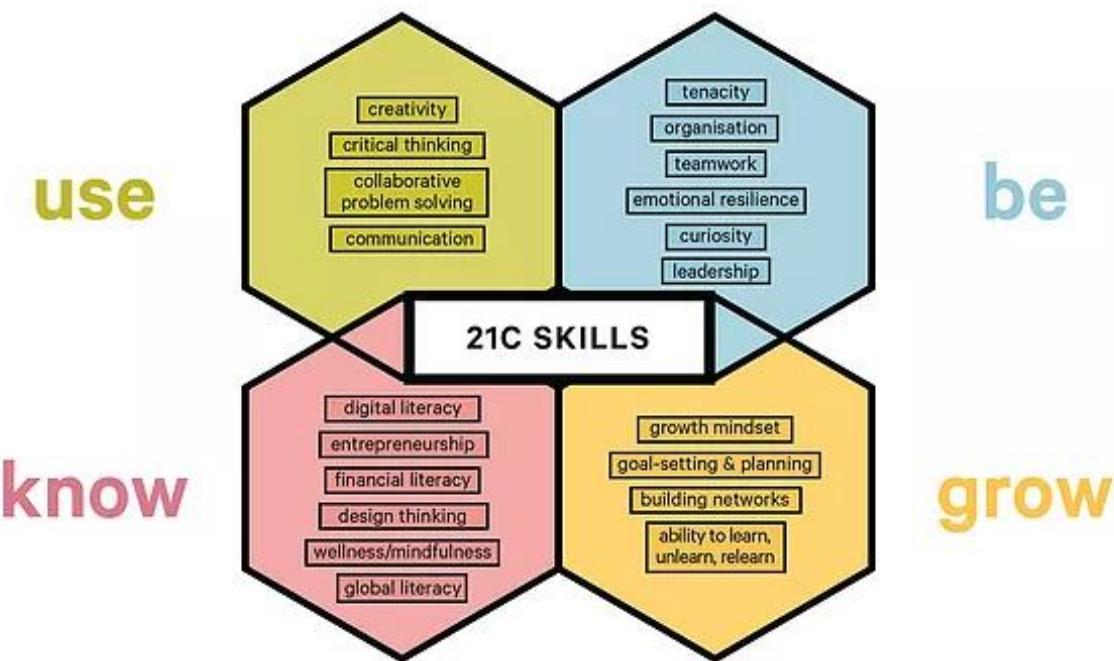


Figure 6. Lifelong learning skills of the future, needed today (Source 21C Skills Lab)

Jobs for life or a job for now

A ‘job for life’ social contract is no longer realistic or even desirable to some. A person may have several career changes over their working life, given the accelerating pace of technological and economic change. Employers who help their employees develop either within or outside the organisation will have a competitive advantage to recruit and retain future talent.

Inevitably, much of the responsibility will be on the individual. They will need to adapt to organisational change, be willing to acquire new skills and experiences throughout their lifetime, try new tasks and even rethink and retrain mid-career. Organisations can help by making it easier to train or retrain, and encourage adaptability and the critical and increasingly valued skills of leadership, creativity and innovation.

Risks of growing inequalities

The increasing uptake of technology both to augment and to potentially replace labour is likely to disproportionately affect lower-skilled workers. At the same time there is also the potential risk of routine mid-level roles and skills being displaced by technology. This signals a greater need for mid-career training and reskilling. If such employees do not gain the skills to move from mid-level to higher-level occupations, we could see an increase in competition for lower-paying, lower-skills jobs less susceptible to automation. At the same time those with in-demand technical skills and at a management level will likely prosper. The collective impact of these trends are likely to exacerbate existing socio-economic inequalities across New Zealand’s population.

One area frequently overlooked is how automation will affect female and male workers differently. Depending on how it unfolds, the FoW could drive gender equality, or hinder it. If job losses affect lower-skilled workers, as well as occupations traditionally held by women such as administration and support services, the changes could disproportionately affect



women. At the same time, women are under-represented in growing areas of employment that require STEM (science, technology, engineering and mathematics) skills and knowledge.

Research makes it increasingly clear that companies with more diverse workforces perform better financially (McKinsey 2015). This issue poses significant risk for businesses in terms of losing competitive edge to organisations that maintain diversity.

Skills shortages or a skills search crisis?

As New Zealand's economy has grown, organisations are finding it difficult to attract and retain employees. A 2018 survey found 61 per cent of New Zealand's directors cite labour quality and capability as one of the biggest impediments to national economic performance⁶. This issue was also identified as the single biggest risk facing organisations.

The race for talent is getting more competitive, with companies seeking the best human capital. This reflects growing skill shortages; low unemployment and an education system that does not prepare students with the new skills that business seeks (Figure 6). Eighty-seven per cent of CEOs state that skills shortages present the biggest risk to business growth and they are ill-prepared. The need to attract, recruit and retain skilled labour will be even more critical going forward.

But it could also suggest that business needs to look more widely, both for the skills they think they need, and for who may have those skills⁷.

The supply of workers is rapidly changing due to shifting demographics, enhanced longevity, and the need to include previously marginalized segments of the population. Diversity could be the key to accessing the widest pool of candidates and skill sets.

Organisations need to focus on diversity during the recruitment process to ensure they are keeping up with the best talent in the market. Removing unconscious bias from recruitment processes will be a key step, but overcoming hiring bias to promote a more diverse and inclusive workforce can still be challenging. SBC has produced a practical toolkit to help business diversify their recruitment strategies to hire, train and retain young people:

<http://www.sbc.org.nz/resources/guides/youth-employment-and-recruitment-toolkit>

Increased competition for talent will make a company's reputation even more important. Companies that manage the transition well and harness the expertise and knowledge of their employees will be in a leading position.

41% of NZ businesses are dissatisfied with the work readiness of school leavers and 46% are struggling to find skilled labour. (source: 21cSkillsLab)

Connecting education and employment

Leading businesses including Ngāi Tahu and Z Energy are taking a multi-pronged approach to tackle these skills-based challenges:

⁶ 2018 Director Sentiment Survey. Institute of Directors.

⁷ <https://www.charteredaccountantsanz.com/news-and-analysis/insights/future-inc/the-future-of-talent>



- Upskilling and reskilling the current workforce to address current and future skills gaps and shortages.
- Fostering strong partnerships with schools⁸, tertiary institutions and communities to lay the foundations for the future. The focus of these partnerships includes championing, and coaching the lifetime skills, as well as preparing them for a 'life time of learning'. Development of lifetime skills such as creativity, collaboration, leadership (Figure 6) are growing in their importance relative to traditional subject-based learning in ensuring young people are ready for the changing world of work.

Strengthening the connection with local communities is even more critical when you consider that more than 80,000 young people are not engaged in education, employment or training. Despite skills shortages, a large group of young people are still disengaged and disenfranchised. Furthermore, many school leavers don't even have the fundamental numeracy and literacy skills needed to enter the workplace, let alone embark on a lifetime of learning which the changing nature of work and technology will demand.

An aging population

Skills and technology disruptions must be balanced with demographic shifts that are changing the workplace. Business will need to adapt to an aging and increasingly multicultural population over the next 25 years. New Zealand already has relatively high rates of mature employment. Approximately 23 per cent of the workforce is over the age of 55. By 2020 around one in four people in the labour force is likely to be aged 55 years and over. This could include more people aged over 65 who choose to continue working due to social or lifestyle reasons. This group still have much experience and knowledge to contribute.

As life expectancy increases, more retraining and upskilling opportunities will be needed for older people. This will enable older workers to find meaningful work and make a contribution to the workforce, as well as help alleviate future skill shortages. Flexible working arrangements will also be needed to foster intergenerational cooperation and knowledge exchange, while ensuring older employees feel valued and connected.

Towards a more multicultural workforce

The labour force is becoming more globalised with increased international migration flows reflecting the wider and more diverse talent pools available to business worldwide. A greater proportion of New Zealand's workforce is Māori and Pasifika, particularly young people. This brings challenges but also an opportunity for business to leverage an increasingly diverse multicultural labour market.

Current occupational preference mean that some industries are struggling to tap into the rapidly growing number of Asian workers. The underrepresentation of Māori and Pasifika in highly skilled and high paying jobs also risks exacerbating existing socioeconomic inequalities. Businesses who can demonstrate an awareness of and meaningful connection with different cultures within New Zealand will be more attractive workplaces and gain higher staff engagement.

The growing international demand for both higher and lower skilled workers will likely mean more people moving between countries for short-term contracts, rather than permanently migrating. The changing nature of work is likely to intensify this trend, with a continuing

⁸ Only one in five New Zealand businesses have any links with secondary schools. (Source: 21cSkillsLab)



move to flexible workforces with shorter term or temporary employment arrangements, particularly for highly skilled workers with internationally transferable skills. Increasingly, our migrants are coming from more diverse countries. New Zealand will have more competition from other countries which are moving to attract and retain these highly skilled visitors, such as attracting top quality international students.

Ethical leadership

Businesses rely on the communities around them for staff, customers and their social license to operate. How a business handles any transition to the new realities of work will have an impact on their reputation and long-term relationships.

Automation and the advent of AI makes it possible to think differently about the nature of work. Rather than a set of tasks and processes, it becomes a collaborative problem-solving effort where people and machines team up to achieve results neither could alone. Focusing on the opportunity for businesses and individual employees to gain new skills, as well as increase productivity and innovation will have social and economic benefits.

Meanwhile, the expectations of the workforce are shifting. Employees are looking for income security, transparency, inclusion and equity as a minimum, while companies that can provide flexibility, opportunity and meaning will be more attractive places to work.

Moving towards an augmented workforce has the potential to deliver efficiencies, boost productivity, and improve reliability, quality and compliance. It will also enable the nature of work to shift away from relatively routine tasks freeing employees' capacity for more complex cognitive tasks, and innovation which is more meaningful, valuable and productive. This will of course require organisations to invest in workplace programmes to support, develop and transition their people with the right skills for a lifetime of work.

Business leaders will also need to find the ethical balance between harnessing the benefits of technology and the needs and growing expectations of the staff, and as well as other key stakeholders.

Changing work practices - balancing flexibility and security

Technology is enabling work to move out of the traditional office and towards more flexible, collective, gig-based work platforms. The gig economy, while relatively small in New Zealand, is expected to grow. The casualisation of work is ushering in a rise of part-time work, redefining what it means to be an employee, and creating new relationships between people and organisations. This is leading to both opportunity and potential exploitation.

Gig working platforms can provide greater flexibility for business, allowing real-time matching of labour supply and demand through procurement rather than employment. However, the casualisation of work presents real risks of exploitation as gig workers lack employee rights and protections. Some workers may leave the full-time workforce by choice, tempted by the flexibility, the earnings potential and the lack of management overhead. There are also those who do it out of financial necessity. Businesses will need to make sure they are well placed to manage a more casual workforce without creating risks to employee wellbeing including secure and fair conditions of employment.

Organisations of the future

We are beginning to see what the next generation of successful companies could look like. The need to keep up with the pace of change, the disruptive nature of business, as well as



meeting customer needs more rapidly has seen the emergence of the ‘agile’ organisation and working practices.

Traditional functional hierarchies are being replaced by a new model based on a network of self-organising teams that create value, by forming around risks or opportunities. Here, the individual has genuine autonomy over their working pattern. This is not just a change in employment contracts; it is a transformation in organisational culture. It involves a shift from strict oversight over how work is performed to a leadership style that empowers people and trusts them to get on with the work.

Studies show work environments that are more autonomous in nature have higher job satisfaction among employees and better productivity. Employee autonomy has also shown benefits in employee happiness and consequently, employee retention. Workers who have a greater sense of autonomy naturally accrue responsibility for their work and increasing become more invested in a successful outcome⁹.

This evolution from fixed working patterns to highly flexible work arrangements is a journey currently being undertaken by a growing number of organisations, such as Spark and Fonterra. Organisations leading the way are introducing results-only measurement systems and autonomous working programmes where employees have high degrees of freedom. Others are following with different degrees of “agility” and varying levels of empowerment for their people. Regardless of where they are in this journey, the general direction of travel is becoming clearer.

Putting all this in place is a profound leadership challenge and opportunity. At an organisational level, many new capabilities will be needed: new technology and skills, new role descriptions and contracts for talent, new and expanded types of partnerships and collaborations, new leadership tools and performance metrics. At an individual level, leaders will need to evolve their own skills, shifting from management to inspiration and coaching, adding value through enabling others rather than controlling information flows, and building strong cultures within the organisation and as well as with partners. They will also need to guide their people through change.

4. Building oversight and adaptability

It is impossible to predict exactly what direction the FoW will take or the skills that will be needed even five years from now, so business leaders and organisations will need to be ready to adapt. Business will need to ask some key questions. What will the future workforce look like? How will we redesign jobs and work? Where will work happen? How will we operate under the new realities of work? How do we attract, incentivise and retain skilled talent?

These questions may be familiar, but the answers may change more rapidly than before. Understanding how these FoW forces interact and the risks and opportunities they will bring about will help you answer these questions.

Strategic planning and risk management

1. What are our opportunities for automating business processes and tasks, and incorporating new technologies? What are the potential impacts new technology will have on roles?

⁹ <https://futureofwork.wbcsd.org/context-for-the-future-of-work/>



2. What are our business's current and future skills needs and capabilities? What is our strategy to support people with the right skill development, infrastructure, investment and services?
3. How do we gain insight and understanding of future technologies that could affect our business, workforce, product and service offerings and delivery models?
4. Is our business strategy fit for the FoW? Do we regularly consider how our strategic and investment planning could be affected by technological shifts? For example, what are the risks of stranded assets?
5. What are our future workspace needs? How will technology and flexible working practices change how and where work gets done? Should we be designing and using physical offices differently?

Skills, talent, training and recruitment

6. How are we engaging employees to help shape our FoW? Are we engaging our employees about the technological changes that may affect roles and occupations, and make sure they understand the implications for future careers?
7. How will our organisation protect our employees and give them the best opportunities to thrive within the organisation or within the wider labour market?
8. What are the implications of the gig economy and talent sharing platforms in enabling our business to meet our current and future skills needs?
9. How are we up-skilling our business? Do we have a plan for employees to prepare for the impact of technological change and to encourage on the job training and up-skilling throughout their careers?
10. How do we ensure prospective employees are 'work ready' by possessing the appropriate technical knowledge, emotional and cognitive skills needed?
11. Do we have a strategy to prepare and manage for higher job turnover? How will our business recruit and retain talent in a higher turnover environment?

Equity, diversity and inclusion

12. How do we ensure that we seek the skills we need widely in diverse pools of local talent?
13. How does our strategy for recruiting, developing, and retaining talent cater for different generations and workers at different stages of life?
14. How will our organisation foster collaboration and inclusiveness in an increasing diverse workforce?

Ethics

15. In adopting technology to augment or potential replace workers, how will we get the right balance between technology and people? If our organisation could automate all tasks, would we?
16. Have we defined what a responsible approach is to the implementation of new technology? For example:
 - How will we balance the efficiencies and productivity gains of automation with reinvestment in employee reskilling?
 - How will employees' voices be included in the transition to an augmented workforce?
 - How will we draw ethical boundaries around data use?
 - How will we ensure algorithms and other AI applications will stand the test of external scrutiny?
17. What do we need to do to help our staff manage any transition in careers or employment with empathy, kindness and respect?
18. If you knew a gig worker could not make a living wage would you pay them more?



5. Recommended resources

Collaborations:

- Future of Work tripartite Forum led by Government, BusinessNZ, Unions (E tū, CTU) and the Business Advisory Council.

Research and Analysis

- The Future of Jobs Report 2018. World Economic Forum (2018)
<https://www.weforum.org/reports/the-future-of-jobs-report-2018>
- Jobs lost, jobs gained: What the future of work will mean for jobs, skills, and wages. McKinsey Global Institute (2017)
<https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages>
- Deloitte Insights on the Future of Work. Deloitte (2019)
https://www2.deloitte.com/insights/us/en/focus/technology-and-the-future-of-work.html?icid=left_technology-and-the-future-of-work
- How will automation impact jobs in New Zealand? PwC (2018)
<https://www.pwc.co.nz/insights-and-publications/2018-publications/how-will-automation-impact-jobs-in-new-zealand.html>
- The Future of Talent. Chartered Accountants ANZ (2017)
<https://www.charteredaccountantsanz.com/news-and-analysis/insights/future-inc/the-future-of-talent>
- Disruptive technologies, risk and opportunities. Chartered Accountants ANZ (2015)
<https://www.charteredaccountantsanz.com/news-and-analysis/insights/future-inc/disruptive-technologies>
- Work for a brighter future. Global Commission on the Future of Work. ILO (2019)
<https://www.ilo.org/global/topics/future-of-work/publications/research-papers/lang--en/index.htm>
- Future of Work. World Business Council for Sustainable Development (2018)
<https://www.wbcsd.org/Programs/People/Social-Impact/The-Future-of-Work>

Emerging good practice

- High performing highly engaged organisations – Air New Zealand and KiwiRail.
- Transitioning to agile organisations and working practices – Spark, Fonterra and Vodafone.
- Workplace skills shifts programmes – New Zealand Post, Fonterra, Ports of Auckland, Bank of New Zealand.



Thanks!

FOR ENQUIRIES

Robert Perry

Manager, Sustainable Leadership

Sustainable Business Council

Email: rperry@businessnz.org.nz

DDI: +64(0)21 477510

Skype: @SBC_RHPerry

Visit: <https://www.sbc.org.nz/our-work/sustainable-leadership>



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