CENTRE FOR
EDUCATION & TRAINING

Digital transformation – Policy brief

A new report by Ai Group Centre for Education and Training, *Skilling Australia to lock in our digital future* explores the opportunities and challenges of digital transformation from a skills and workforce perspective.

What is digital transformation?

New technologies are transforming the ways in which we live, learn, work and play in previously unimagined, and sometimes completely unexpected, ways.

'Digital transformation' is the strategic adoption of digital technologies to improve, and indeed transform, business models.

This 'transformation' is not a one-off event but an evolution, whereby firms travel from digitally nascent to digitally mature. In this sense, digital transformation is actually a story of human leadership, vision, capability and management.

What does this mean for jobs and skills?

Digital skills continue to be in high demand for employers. Just under 60% of businesses reported increased demand in basic digital skills in 2021[1]. This is closely followed by increases in demand for cyber security and data analytics skills.

1 Australian Industry Group. (2021). Skills Urgency: Transforming Australia's Workplaces. Australian Industry Group, Centre for Education & Training.

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Opportunities

Digital transformation is creating many new jobs and tasks, as we need people to develop, apply and service digital technology. This presents an opportunity to transition to higher value, more flexible and less physically demanding jobs.

Digital transformation is also driving increased demand for flexible education and training, able to provide skilling and reskilling opportunities over a lifetime.

Challenges

A higher level of digital literacy is now required across the workforce, as digital tools are increasingly being used to perform tasks across all industries and occupations.

Ai Group surveys show that industry demand for digital skills is broad and deep, and ranges from basic digital skills to specialist technology skills.

As more tasks are done by machines some skills and jobs become redundant. This is driving significant structural change, with many workers needing to upskill in search of alternative employment.

When it comes to our digital progress, Australia receives a mixed report card…

Australia's performance over time		2018	**2021**
Overall	The overall ranking has slipped from **13th** in 2018 to **20th** in 2021	13	**20**
Knowledge		15	**19**
Technology		14	**18**
Future Readiness		11	**22**

Source: International Institute for Management Development. (2021). *World Digital Competitiveness Ranking*.

How digital transformation is affecting Australian businesses

We conducted interviews and case studies with 18 Australian companies drawn from a broad cross section of Ai Group's members. We found that the **pandemic** has been an incredible catalyst for change.

Adopting and adapting to new technologies in recent years has:

- Driven demand for entirely new skillsets in a relatively short time
- Caused businesses to focus more on training and development
- Required existing jobs to be re-designed
- Driven cost savings
- Changed the role and function of managers
- Caused shortages in 'in demand' skills

There is a **wide spectrum of 'digital maturity'**, with strategic planning for a digital strategy less common outside of large corporations. Changes in smaller businesses tend to be more ad hoc and reactive. Many businesses felt the **education and training system needed to better reflect today's business environment** and prepare workers with a mindset to continually update their skills to remain productive.

10 policy strategies that will help us develop the skills and capabilities we need to lock in our digital future

1. Ensure baseline digital literacy for all

- Develop a nationally agreed and easy to understand benchmark for digital skills

We know that, moving forward, meaningful participation in work (and life) will require a baseline level of digital literacy. There is therefore a strong public policy imperative for government to ensure all Australians can survive and thrive in a digital world.

To justify the significant government and private investment in lifelong learning programs, it is essential that there are clear and rigorous standards. The Digital Skills Organisation has released and will maintain an employer-led Digital Skill Standards Framework to create benchmarks for the assessment of digital skills. The standard is intended to provide employers with confidence in the proficiency of the skills, regardless of where or how these skills were developed.

2. Remake the education and training system for lifelong learning

- Implement the recommendations of the Review of the Australian Qualifications Framework (AQF)
- Review the extent to which current tertiary education funding models support lifelong learning

The current model of education and training was conceived in an era of shorter working lives and linear careers. The model of 'one post-school qualification, work, retire' no longer applies to most. New entrants are likely to have over five career changes (AlphaBeta & Foundation for Young Australians, 2017) and are increasingly learning throughout their working lives, responding to a dynamic, global economy that delivers more opportunities and more disruption.

The education and training system will need to step up and be remodelled to facilitate genuine lifelong learning.

3. Make work-integrated and work-based learning the norm

- Scale up work-based learning through cadetships and higher-level apprenticeships across all industries and occupations and ensure adequate incentives for participation.

Models long utilised in health sciences, agriculture and education, where industry integrated learning participation rates are over 50 per cent, drive better outcomes for graduates (Hurley et al., 2021) and should be extended. Broad roll-out of cadetship models and higher-level apprenticeships will help drive graduate cohorts with relevant capabilities.

the proliferation of online courses and digitally enabled classrooms is allowing people to learn at their own pace and schedule and develop skills and (often) earn qualifications. These new modes of learning provide an opportunity to springboard career changes and rapidly fill skill gaps, by leveraging work-integrated and work-based learning.

4. Expressly develop 'human' capabilities and characteristics

- Continue to explore ways to develop general capabilities in school and tertiary education and ways to recognise capabilities in tertiary admission.

As machines do more and more, a human's value to an enterprise is increasingly about the ability to spot opportunities, formulate strategies and build networks and collaborations.

We need to acknowledge the increasing role these capabilities play in workers' careers and educate and train with this mindset.

5. Ensure no one is left behind

- Flexible, accessible training products must be developed to enable existing and older workers to develop the baseline digital capabilities they need to continue working.

- Governments at the state and federal level should explore ways to support displaced workers transitioning into entirely new industries and roles.

On our journey to a digitally augmented future of work many jobs will be automated, and new jobs will take their place.

It will be important to address this displacement and facilitate workers' transitions to new digitally augmented roles. However, our policy response will need to walk a fine line. We need to maximise the upside of productivity-enhancing industry transition, while also minimising the downside risks of displaced and disengaged workers. We must guard against entrenching deep and lasting inequality between the knowledge and digital capability 'haves' and 'have nots'.

6. Get skilled migration right

- The Commonwealth Government should adequately resource and prioritise the provision of a timely, dynamic dataset on national skill needs and occupation classifications. This must be constantly reviewed and updated in consultation with industry.

For a nation like Australia, getting the skilled migration pipeline right – meaning finely tuned to demand – will be key to our continued prosperity.

Australia has, and will continue to, rely on skilled migration to plug skill gaps and grow the economy. The Commonwealth Government should adequately resource and prioritise the provision of a timely, dynamic dataset on national skill needs and occupation classifications. This must be constantly reviewed and updated in consultation with industry.

7. Foster business certainty to drive investment

- National policy settings should be carefully calibrated to incentivise and encourage technology driven investment in people, particularly for small and medium enterprises.

The investment needed to drive digital transformation across the economy relies on decisions at the enterprise level.

Policies need to incentivise and encourage business investment in both technology and technology skills if we are to succeed in reaping the benefits.

8. Create trust in technology

- The Commonwealth Government must continue to play a strong role in building an environment that fosters trust in a digitally enabled economy. This should be done in close collaboration with industry.

There is a level of fear and scepticism about the risks of relying too heavily on technology. If left unaddressed, these fears will hold Australia back.

Cyber security is an evolving challenge requiring significant collaboration between industry and government to build resilient systems.

9. Ensure a better data picture of skill needs

- Explore ways to improve the quality of data provided to industry, policymakers, the education and training sector and individuals to drive a better understanding of skill demands and stimulate investment in pipelines.

The collection and analysis of comprehensive and timely data on skill needs, and data sharing between governments, the education and training sector and industry will be key to staying one step ahead of the digitally enabled economy.

By creating a coordinated map of supply and demand for the new skills across all sectors, the education and training system can respond and deliver the appropriate mix of skills in the short, medium and long term.

10. Work together to step up to the challenge

- As with all major economic transitions and upheavals, the transition to a digitally enabled economy will be protracted and complex, and there will be inevitable winners and losers.

In order to step up to this opportunity, Australian businesses need the leadership, capability, and skills to seize the moment.

Contact for this report

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