

The Reskilling Revolution.

April 2020

Foreword.

At Adobe, during this time of uncertainty, we have had to rethink how we engage our local and global workforce and take decisive action. We are now operating totally virtually and constantly evaluating how to optimise our resources to fit the current operating environment for ourselves and our customers.

The digital economy is also rapidly changing. In some cases, digital transformation programs slated for delivery over coming years now need to be delivered in a matter of weeks. We have already seen this overhaul traditional operating models at pace. Both the shift to virtual learning as Australian classrooms move online to the remote delivery of primary health services to those in need are just the start.

While organisations had already been building resilience to technology-driven disruption for some time, we must now grapple with this new upheaval. Arguably, it has brought forward the future of work. The urgent need for ongoing skills development – both soft and hard – has been brought into sharp relief. This is a global imperative, and this report seeks to further the discussion started by the World Economic Forum following the launch of its Reskilling Revolution platform.

In today's environment, technology is already the primary enabler of many organisations' ongoing operations, but creative solutions and soft skills are also needed to address the unprecedented challenges we currently face. Our Reskilling Revolution report points to a clear demand for creative skills that are critical to innovation.

For many public and private sector leaders, this is a defining moment. The stakes have never been higher, and the decisions made today to equip the workforce with the skills they need will impact organisational culture and resilience over the longer term. It's encouraging to see that many already have the right mindset, evidenced by innovative solutions to transfer roles and skills between organisations and across industries.

Governments are already demonstrating leadership and considering supportive policy settings that encourage rapid upskilling amid the digital transformation of entire industries. From there, recalibrating educational curricula to support learning in the right areas and driving internal change can provide a clarion call for reskilling the workforce as a whole.

The current situation is evolving, fast. For organisations that are mounting their response, there are both crucial considerations and pathways for decisive action that this report puts under the spotlight. This will be particularly important as organisations and their people adjust to an operating environment that has inevitably changed forever.

Suzanne Steele

**Managing Director
Adobe ANZ**



Recent events have dramatically accelerated digital transformation programs. As a result, the need to equip the workforce with new skills has never been more urgent.

Acting with urgency.

The global response to the developing health crisis has even further embedded technology within the fabric of our society. The digital economy has come into sharp focus and it's having a profound effect on how we live, work, socialise and connect.

Many organisations now need to think differently about engaging a decentralised workforce while ensuring the safety of staff, and ongoing digital transformation projects are being fast-tracked to ensure continuity of operations.

From the perspective of businesses and governments, new technologies continue to shift operating models, allowing for more effective and seamless product and service delivery that permeates every sector. Technology is also providing the digital backbone of the economy particularly as virtual interactions become favoured over physical ones.

Many organisations are already rapidly adopting new technologies to reshape the customer experience to remain relevant, empower staff, increase efficiencies, and stay competitive – all at scale. However, recent events have dramatically accelerated digital transformation initiatives. As a result, the need to equip the workforce with new skills has never been more urgent.

At Adobe, we set out to understand how the move to digital-first operations, accelerated technology adoption and new workplace norms are impacting organisations so that we can help chart a course for the future.

We also wanted to explore the vital role that strong leadership and educational programs can play in facilitating the reskilling revolution required to future-proof the workforce.

Understanding the opportunities.

Adobe's Reskilling Revolution report unearths valuable insights and rich areas for discussion. These will assist organisations to consider important factors that can help us face this unprecedented change and upheaval.

Forward-looking governments are already revolutionising the delivery of public services and enhancing the citizen experience while deriving the associated digital dividend. Educational institutions can also continue to reframe the learning experience to better prepare graduates for the workplace and ensure that everyone has an opportunity to develop crucial skills. Businesses can better navigate the disruption and change that's already underway.

The future is upon us.

The status quo.

The ability to effectively operate in today's dynamic marketplace will be determined by how well businesses can harness and integrate new technologies.

Responding to change.

The current environment has forced organisations to transform their operating models almost overnight. The way they connect with their suppliers, customers and the workforce has had to fundamentally change. Systems, processes, communication channels, supply chains and networks have been tested to the limit and, often, found wanting. The way forward has been shown to clearly lie in technology, leading to a crucial question. How do you redesign jobs around existing technologies and create future roles that capitalise on emerging technologies?

In response to this question, the report seeks to identify the skills that will be in most demand and the types of roles most likely to be reshaped.

From this information we can identify existing technologies that can best enable workers and find opportunities for reskilling and upskilling workers.

Increasing demand for creative skills, augmented by technology.

Managing the impact of technology on the workforce is not a new leadership challenge. Adoption of emerging technologies has already led to significant shifts in workforce design and the reimagining of individual roles. This has been seen particularly as organisations have sought to derive efficiencies from automation. While recent developments have also shown how people and technology can work more effectively together, it has also highlighted some immediate skills gaps that portend the future.

To examine the impact of technology on the workforce, we partnered with Sydney based specialist AI analytics company, Faethm. Faethm helps organisations around the world to create economic and social value from the impact of emerging technologies.

The research found that while automation was more likely to impact operations roles, technology is augmenting creative roles and freeing up capacity. In these creative arenas, technologies like predictive analytics and solution discovery were likely to be supporting delivery.

This means that roles are likely to continue changing, potentially at a faster rate. For organisations, this requires an understanding of how to build the capabilities that allow their people to keep pace.

Impact of augmentation on global operations, marketing and creative jobs at 10 years.

A regional comparison outlining jobs that can be augmented by the onset of new technology and capacity gains realised through augmentation.

	Asia	Europe	ANZ	North America
% Of Workforce				
Augmentable*	15.5%	22.9%	21.1%	31.0%
Capacity*	7.1%	10.7%	9.7%	8.6%
FTE				
Augmentable*	9.2M	8.3M	668.7K	8.1M
Capacity*	4.2M	3.9M	307.6K	2.3M

*Augmentable - the opportunity for technology to assist in more efficient delivery.

*Capacity - the additional capacity gains achievable through augmentation.

Reskill and upskill.

To effectively accelerate digital transformation strategies, businesses should reskill and upskill employees on a continuous basis. This will ensure that they organically develop the the workforce capabilities required now and into the future. According to the TAFE Enterprise NSW Skills and Australian Business report, many Australian businesses are not currently offering staff sufficient training and development packages in the belief that it's easier, cheaper and less time-consuming to hire new talent.

Business leaders need to align their technology adoption roadmaps with the skills they need.

The next step is to provide existing staff with on-the-job learning and development opportunities, with upskilling programs delivered by qualified trainers.

Organisations that invest in customised, specialist training for staff will be best positioned to embed a culture of learning and maximise investment in technology. It is also important to find the balance between developing an organisation's existing workforce and recruiting new talent.

The TAFE Enterprise NSW Skills and Australian Business report uncovered:

48% of Australian businesses would rather hire talent than train existing employees.

80% of Australian businesses believe they should invest more in staff training.

70% of businesses are finding it more difficult to hire workers with the specific skills needed.

Our research work with Faethm revealed five capabilities that are crucial to meet the changing nature of work.

- **Core Future:** the capabilities all workers will need to keep pace with an evolving workplace
- **Outcome:** outcome capabilities enable the translation of an individual's capabilities into workforce outcomes
- **Leadership:** leaders need specific capabilities to lead a constantly changing workforce
- **Digital Literacies:** required in the workforce to enable employees to access information, communicate, solve problems, learn, innovate and collaborate
- **Data Literacies:** ability to identify, locate, interpret and evaluate information. In particular, understanding concepts of statistics to fully extract and action insights from data

Six key insights.



The future of work has arrived early.

The impact of emerging technologies, including new job creation and role alignment, is already well underway as the digital transformation of industry, government and education accelerates.

The scale of technology adoption is one factor that continues to put pressure on existing resources and is increasing the need to recruit new skills. The other is the even more dramatic shift to virtual work environments as operating models are forced to rapidly shift, and the current considerations around technology-enabled workforce design. These factors highlight the immediate need to develop new skills and reinvent the workforce.

As innovation drives new ideas and technology turns them into a reality, a balanced and diverse workforce can assist organisations to remain competitive, adaptable and resilient.

The Reskilling Revolution report suggests rapid technology adoption will take place towards 2025, while skill shifts from Automation and Artificial Intelligence (AI) technologies will further accelerate in the period to 2030. Recent developments have potentially brought that timetable forward and organisations may no longer have five years to incrementally build the digital capabilities they need.



Taking action

Through understanding the impact of digital transformation on the workforce, organisations can match changing roles with required skills. You can generate greater value and meaning for the workforce by:

- Identifying the functions and jobs within your organisation that are most likely to be impacted by technology
- Aligning immediate and future organisational goals with roles and opportunities accordingly
- Developing clear pathways to develop the skills that equip your organisation



Digital transformation on the fast-track.

While the prospect of expedited digital transformation is daunting, there are benefits for organisations ready to engage and support their teams. Ultimately, the improvements driven by technology integration and augmentation can create greater value for both business and society, enabling the workforce to contribute more.

We already know from our digital trends research that organisations in APAC have a higher propensity for adoption of emerging technology than their global counterparts. For example, 54% of APAC companies are planning to invest in AI, compared to the global average of 42%.

To successfully deploy technology solutions and manage the requisite change means balancing technical expertise and softer skills like creativity that are central to innovation.

This is supported by LinkedIn Learning's The Skills Companies Need Most in 2020 report that ranked creativity as the most in-demand skill for 2020. The World Economic Forum (WEF)'s report on top global skills for 2020 found it to be the third most desired skill globally.

Our Reskilling Revolution research also finds that digital and data literacy are among the most important skills for all employees.



Taking action

As organisations continue to accelerate adoption of new technologies, new skills are required to maximise implementation for the benefit of staff and customers. Activities you should consider:

- Identifying which existing and emerging technologies will affect your business, by both technology type and function
- Understanding the technology capability within your business to ensure you can optimise related investments
- Creating learning and development opportunities to fully enable new technologies

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Reskilling in retail is actually ‘newskilling’. As customers become busier, we build ecosystems to support and engage those customers. If you are helping your customers be more mobile, it’s essential to mobilise your people. The trick is don’t leave your people behind! ”

Gary Wheelhouse
Chief Digital Officer, Harvey Norman

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People are your greatest asset.

We have recently seen many organisations move to equip their workforce with the tools and training they need to work in a purely digital environment. While these actions are designed to put the health and safety of employees first, the workforce has adjusted quickly to new ways of working.

However, adequately supporting the workforce through this shift means giving everyone the opportunity to reskill and upskill. Today, there is already a growing gap between those least likely to have technology skills and those with the capability to adapt. This gap is likely to widen in an environment where digital interactions are preferred.

The Reskilling Revolution study shows that while some roles may change more than others, giving all employees the opportunity to reskill is important. Research confirms diversity and inclusion contributes to stronger financial outcomes, more innovation and enhanced organisational culture.

This is also important in the context of our research findings which highlight the need for gender balance when it comes to reskilling the workforce. While there is a greater proportion of female workers in operations roles, creative and marketing roles tend to be more male-oriented. The benefits of gender diversity are well established, and it is therefore vitally important that organisations create clear pathways for all workers to acquire new skills.



Taking action

Mapping the skills base and composition of your workforce can help identify more tailored reskilling pathways for all employees.

This includes:

- Leadership proactively committing to the development of reskilling programs
- Providing equal opportunities for employees with new skills to add value
- Understanding that creativity should be nurtured to drive innovation

Reskilling pathways for future success.

The job-corridor Pivot Score helps identify the best job transitions and is a combination of a number of metrics e.g. job similarity and job attribute.

Current job (automatable)			Future job (more secure)	
Role	% Automatable	FTE in ANZ	Pivot Score to alternate role*	Futureproofed role
Accountant	39%	319,720	92.9%	Market Research Analyst
			91.3%	Digital Customer Experience Manager
			90.2%	Project Manager
Procurement Clerk	47%	69,436	91.1%	Agency Account Coordinator
			90.8%	Media Buyer
			90.8%	Programmatic Trader

*The 'Pivot Score' is a measure of how viable moving from one job to another may be based on the two job attribute sets (and other key factors). A higher number represents a likely easier pivot to the target / future job. Faethm recommends focusing on reviewing job transitions that have a Pivot Score above 75 for greater ease of transfer, shorter time to re-skilling pathways and greater job security in the future. Assessing individual aptitude and motivation for a transition is a key next step.

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Culture is vital for resilience.

As leaders seek to navigate both technology-led disruption and engage a decentralised workforce, it's important that they create an internal culture that empowers their people. This can optimise talent retention and acquisition and assist in the redesign of roles that accompanies change.

The organisations that successfully transform their business through the adoption of emerging technologies and reskilling of their workforce stand to deliver improved customer experience, enhanced employee experience and more operational efficiencies.

Our recent *2020 Digital Trends* report with Econsultancy revealed that leading businesses also tend to provide a wider range of learning resources, tailoring the approach to the task and the individual. Based on our findings, we suggest a balance between corporate learning platforms, encouraging people to read blogs and follow influencers, and in-person training.



Taking action

Having leadership teams clearly articulate their vision for transformation will energise the workforce and assist in managing change.

This includes:

- Leadership and management teams should have a digital communications plan in place to engage all staff across the organisation and explain the implications of the vision
- Establishing clear metrics to evaluate the impact of digital transformation projects on the business

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Government: leading by example.

Governments are already seizing the opportunity to pioneer change within the Australian workforce guided by the current need to deliver a positive social impact and satisfy the immediate needs of citizens. They can further define a strategy within the public sector workforce to support the ongoing transformation of digital services and set the standard for staff reskilling initiatives.

Governments can achieve this by continuing to redesign job roles to align with the introduction of new technologies, and organically develop the public sector skills that are required to deliver major digital projects. Then, having established a best practice use case, take the learnings from its own experiences to facilitate change in its citizen workforce.

Beyond initiatives such as moving to offer ongoing education to students online, governments can also look to develop the critical education policies that help prepare students at all levels for the changing nature of work. This can include promoting the importance of creativity, critical thinking and collaboration skills to accompany the cultivation of science, technology, engineering and mathematics (STEM) skills already under way.



Taking action

The public sector is well placed to develop broader trust in technologies like big data, AI and predictive analytics. Governments can demonstrate their commitment to support ongoing skills development by:

- Being early adopters of emerging technology to empower both their workforce and citizens
- Creating best practice benchmarks internally and leading by example
- Opening the door to sharing and collaboration



Education is a lifelong learning experience.

Logically, tertiary students should learn in a way that best prepares them for the technologies, skills and pace of development they will need to stay relevant once they enter the job market.

Educational institutions, in a similar way to governments, have a big role to play in preparing the workforce. First, by developing new curricula that puts continued learning at its core. Then, by featuring course activities that align with the work experiences that school leavers will encounter can exponentially enhance students' job prospects around the world.

From a learning perspective, international exemplars suggest that performance based learning is one of the most effective and engaging way for students to acquire the deep content knowledge and array of essential skills they will need to thrive as workers, community members, and lifelong learners.

By understanding job corridors, job development, target jobs and the capabilities required for the new ways of working, a new curriculum and early learning intervention can also help to equip workers for new and changing roles. Additionally, examining job corridors in conjunction with continuous learning can highlight areas of collaboration between industry and educational providers to encourage policy reform.



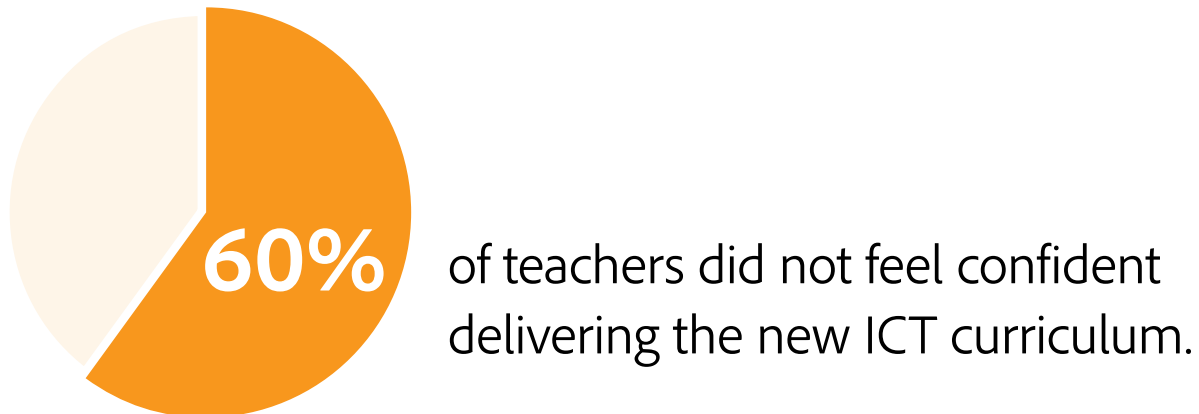
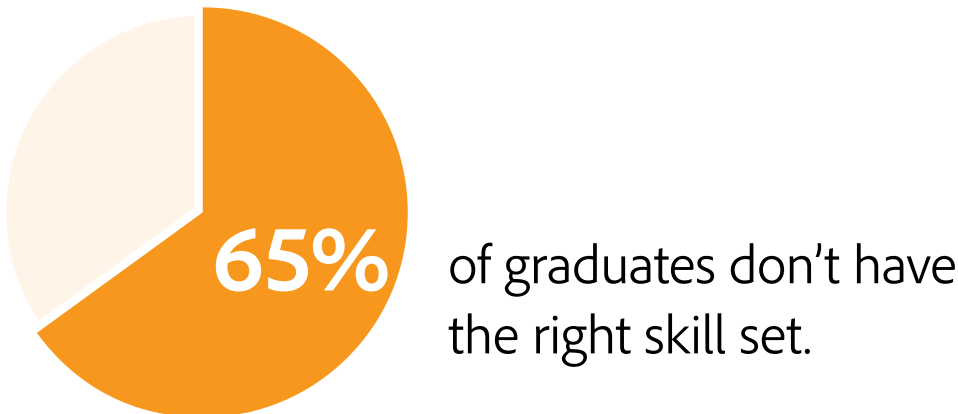
Taking action

Educational institutions that integrate new skills development into their curricula will find themselves more appealing to students.

To stand apart, educational institutions should look to:

- Shape the future by embracing new technologies in the running of the organisation
- Boost creativity at every opportunity to equip students to embrace change
- Be brave and commit to taking a bold step

Emerging technology and education.



Source: Faethm data insights

Emerging technology and people involvement.

Year 1				Year 15
Logic	Logic and Learning	Comprehension	Autonomous	Non-assisted Human AI
Programmed Intelligence technologies are pre-programmed and are non-autonomous.		Narrow Artificial Intelligence technologies are semi-autonomous but are purely reactive.		Broad Artificial Intelligence technologies are pro-active and require no prompt to act.
Reinforced Artificial Intelligence technologies are self-improving agents that can perform unfamiliar tasks.				

Emerging technology in ANZ.

Collaborative Robotics	Conversation Exchange	Decision Generation	Predictive Analysis
Generative Design	Solution Discovery	Process Automation	

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We will require continual re-training and up-skilling as the world keeps changing. The future of work contains infinite possibilities. It's what you do with this potential that matters.”

Chaminda Ranasinghe
Chief Marketing Officer, RMIT University

The Reskilling Revolution — a summary.

It is evident that as organisations and governments seek to ensure the safety of their people, the digital economy has come to the fore. The impacts are being felt both by individual businesses and entire sectors as digital transformation continues apace. The success of these programs relies on the capabilities of those delivering them, and many organisations need to develop skills urgently. Put simply, a reskilling revolution is required.

Key learnings

- 1. All industry sectors should consider continuous workforce learning as a priority.**
 - As digital transformation accelerates, short and long-term preparation and investment has become more urgent
 - Reskilling existing staff and building structures for lifelong learning is an imperative
 - Making and sustaining investments in building workforce skills can help drive a powerful competitive advantage
- 2. The financing and implementing of a reskilling revolution are important for businesses, workers, the economy and society.**
- 3. Governments should lead by example through driving internal change, create reskilling opportunities, and develop educational curricula to support creativity and technical capabilities.**
- 4. The study identifies the benefits of diversity and demand for creative skills.**
 - Creative skills are vital to innovation and can complement technology skills as we collectively adapt to new ways of working
- 5. A culture of digital and data literacy which can be championed throughout the workforce provides an opportunity for organisations to better adapt to change.**

Businesses should also:

 - Develop internal educational programs designed to suit rapidly changing business operations, and to realise benefits for both the business and its customers
 - Adobe has always strived to make customer experiences better. We believe that creativity and data literacy are foundational skill sets for many of the jobs of today and into the future

Faethm's methodology — Future of Work Study.

Creative, marketing and operations jobs for each geographic region were derived from Faethm's Global Workforce dataset. Faethm's data is built from publicly available datasets or inferred using predictive modelling via available source data.



1. Census collection

Census data was gathered from across the world and job classifications mapped to Faethm's job taxonomy of over 1500 job families to enable like-for-like comparison of country workforce data.



2. Country expansion

For countries where census data was unavailable, the International Labour Organisation workforce statistics was used to seed a full automated census build for each remaining country. Census creation is completed by inferring workforce size from similar countries that share various workforce and economic attributes.



3. Marketing and creative estimation

Starting with the original census counts of job-families, estimates of the number of individual creative and marketing jobs were calculated by querying our database of 21 million job ads obtained from the US and UK over the period from 2017-2018.



4. Faethm prediction engine

All collected and created job-data for the region was then loaded to the Faethm Platform to predict the impact of emerging technology on each job over 15 years.

