



Curtin University

FUTURE SKILLS FOR PROFESSIONALS

Get clarity amidst complex needs and priorities

Make tomorrow better.

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Feedback

If you found this report useful, or have suggestions for improvement, please provide feedback to learningpartnerships@curtin.edu.au

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EXECUTIVE SUMMARY

Skilled employees are critical to thriving organisations. Skills formation is fundamental to growing national productivity and individual opportunity, “if we had to pick just one thing to improve... it must be skills formation”.¹ A more skilled workforce could see an annual boost in our national income of \$36 billion by 2030.²

To adapt to the future of work, Australia needs to invest an additional 3 hours per employee per week in professional development by 2040 - that’s a 33 per cent increase in education and training across the average Australian’s lifetime.³ COVID-19 has amplified this need for workforce adaptation. According to Gartner “more than 58 per cent of workforces report skill transformations since the onset of the pandemic”.⁴

The Australian experience is shared worldwide. The global market to upskill and cross-skill workforces is expected to grow 54 per cent to US\$3.8 trillion by 2030.⁵ This will see an influx of offerings from established and emergent providers of varying quality and relevance.

How can organisations be strategic about building workforce capability? And how might professionals invest in their own development amidst the rapidly changing world of work?

Curtin engaged professionals across a range of industries to understand their upskilling needs and preferences. We sought to understand individual responses in the context of global dynamics and the needs of WA’s economy. This report highlights key insights to help guide those

responsible for organisational development and professionals’ personal development.

Professionals across diverse industries seek relevant, high-quality and timely learning experiences. These offerings span informal learning events, short courses, professional and continuing education, and contemporary postgraduate degrees. Our findings focus on six Future Skills Areas.

Key insights:

- Respondents want to develop sought after skills but are uncertain how to proceed, and unsure how well-supported they will be within their organisations.
- Respondents seek dynamic learning experiences integrated with their work that reflect value-for-money and relevance amidst rapidly changing organisational and market contexts.
- Respondents have diverse learning needs and while they may seek a range of providers value simple ways to plan, aggregate and credential that learning.
- Respondent aspirations are aligned with Future Skills Areas with 75 per cent of professionals wanting to develop skills across all six Future Skills Areas identified in this study.

Skills development is essential for individuals, organisations and our national capability. As we experience the full impact of the COVID-19 pandemic there has never been a greater need and opportunity to accelerate relevant, targeted learning for professionals.

¹ Productivity Commission, *Shifting the Dial: 5 Year Productivity Review*, (2017), 85.

² *Building the lucky country, seventh edition: The path to prosperity – why the future of work is human*, (2019, Deloitte), 37.

³ Alphabet, *Future Skills*, Google, (2019), 5.

⁴ Smarter with Gartner "Lack of Skills Threatens Digital Transformation," 1 July 2020, <https://www.gartner.com/smarterwithgartner/lack-of-skills-threatens-digital-transformation/>

⁵ HoloniQ, *Education in 2030*, (2019), 8.

SURVEY PROFILE

Global trends, local contexts frame future skills

Our world is interconnected. We looked at global skills trends through a market scan and by cross-referencing with a multitude of global skills providers, reports and data points to validate the frame that emerged, Six Future Skill Areas. These skill areas formed the basis of our survey structure.

Six Future Skill Areas

INNOVATION



Blends creativity and delivery to create new value by drawing on entrepreneurial mindsets, approaches, tools and techniques.

COGNITIVE FLEXIBILITY



Developing the capacity to think flexibly about multiple concepts to solve problems, lead, create and adapt to change.

EFFECTIVE WORK DESIGN



Imagining, designing and implementing work and working environments to support human flourishing and productivity.

PERSONAL LEADERSHIP



Developing and using positive, sustainable, resilient and inclusive traits to guide your life, career and organisational directions.

INDUSTRY 4.0 TECH



Engaging the ongoing transformation of industries and practices through smart technologies and the changes they enable.

GLOBAL SUSTAINABILITY



Striving for sustainability by adapting our thinking and actions related to economics, the environment, politics and social issues.

Relevant topics

We mapped the Future Skill Areas to selected topics and developed a survey to understand the local market dynamics and appetite for professional development in these areas. Figure 1 below lists the 37 topics tested and highlights the interconnectivity between topics and Future Skill Areas.

Figure 1: The 37 tested topics mapped to Future Skill Areas

Climate Emergency	✘	Internet of Things	▲
Corporate Governance	✘	Transnational Electronic Commerce	▲
Mine Site Rehabilitation	✘	Cross Border Protection of Intellectual Property	▲
Urban Ecology	✘	Ethics in a Digital World	▲ ✘
Diversity Across the Employee Lifecycle	✘ ✘	Cyber Operations	▲
Domestic Violence in the Workplace	✘ ● + ✘	Data Analytics for Everyone	▲
Advanced Manufacturing	▲ ✘	Introduction to Robotics	▲
Future of Food	✘ ▲	Blockchain	▲ ✘
Health Economics and Leadership	● ▲ ✘ ●	Emotional Intelligence	● + ✘
Indigenous Cultural Awareness	✘ ● + ✘	Resilience in the Workplace	● + ✘
LGBTI+ Inclusive Practice in the Health Sector	✘ ● + ✘	Digital Transformation	▲ ● ✘
Understanding Mental Health and Preventing Harm	● + ✘ ✘	Creating Work to Accompany Technology	✘ ▲ ●
Empathy and Advocacy	✘ ● + ✘	Developing Change Mindsets in the Workforce	+ ● ● ✘
Thrive at Work	✘ ● + ✘	Adaptive Leadership in a VUCA World	● ● +
Workplace Relations in the Modern Workplace	✘	Emerging Technology and the Law	▲ ●
Attracting Talent in the Digital Age	▲ ✘	Storytelling in a Contemporary World	● ●
Creating Meaningful and Engaging Work	✘ ● ✘ ●	Creative Perspectives in Project Management	●
Digital Engagement	▲	Professional communication & Media Training	● + ✘
Social Media	▲		

▲ Industry 4.0 Tech ● Innovation ● Personal Leadership + Cognitive Flexibility ✘ Global Sustainability ✘ Effective Work Design

Participation

The Future Skills Areas in this report are informed by global trends and local contexts. We've sought to reflect global dynamics shaping work and skills needs and by engaging local professionals, highlight the preferences of our local context.

We received 347 valid responses that recorded current future skill area engagement levels and interest in developing capabilities.

Responses from this sample population comprised the following demographic highlights:

Location: Of the 347 valid responses 174 respondents confirmed their location as the Perth metro area.

Generation, age and gender identification: Responses were collected across five generations.

Figure 2: Perth metro respondent demographics

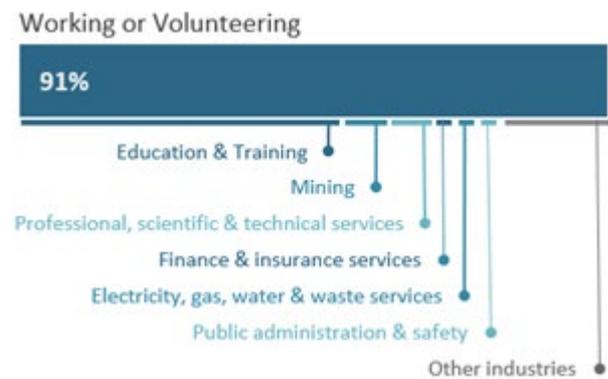
Generation / Age	Gender (Identified as)		
	Female	Male	Null & prefer not to say
Null & prefer not to say		1%	1%
Gen-Z 18-22	4%	1%	
Millennial 23-38	28%	16%	1%
Generation X 39-54	31%	11%	1%
Baby Boomers 55-73	4%	2%	
Silent Gen 74+		1%	

Occupational category and industry representation:

- 92 per cent of respondents who shared their occupational category selected 'working or volunteering' and of these, 91 per cent recorded working across one of Perth's top 10 value adding industries.⁶

- 35 per cent of working or volunteering respondents also selected one or more other occupational categories: 19 per cent stated that they were currently studying or undertaking professional development; 6 per cent said they were entering, re-entering the workforce or career transitioning; and 21 per cent said they were also parenting or caring.
- In total at least 77 organisations in Perth were represented.

Figure 3: Perth metro industry representation snapshot



Highest leadership level: 57 per cent of Perth metro respondents reported having worked at management or senior leadership levels with more than 2,200 current direct reports.

Observing needs and preferences
Survey respondents provided feedback on their experience, appetite and preference to develop capabilities across the six future skills areas and 37 related topics. They also addressed:

- preferred learning modes, locations and learning duration
- expectations and preferences for academic credit and awards, and
- providers that respondents deemed credible.

Open text questions also gave us deeper insights and context into the market definition of flexibility, convenience, value and quality.

⁶ According to: Top 10 value adding industries in Perth as per Remplan. (n.d.), <https://app.remplan.com.au/perth/economy/industries/value-added>

RICH INSIGHTS

Insights into the diversity of respondents and the different personas of people looking for skills are useful in curating offerings and suites of offerings for different needs. Figure 4 shows an example of curated topics and variations in existing levels of engagement, as well as duration, mode and level preferences.

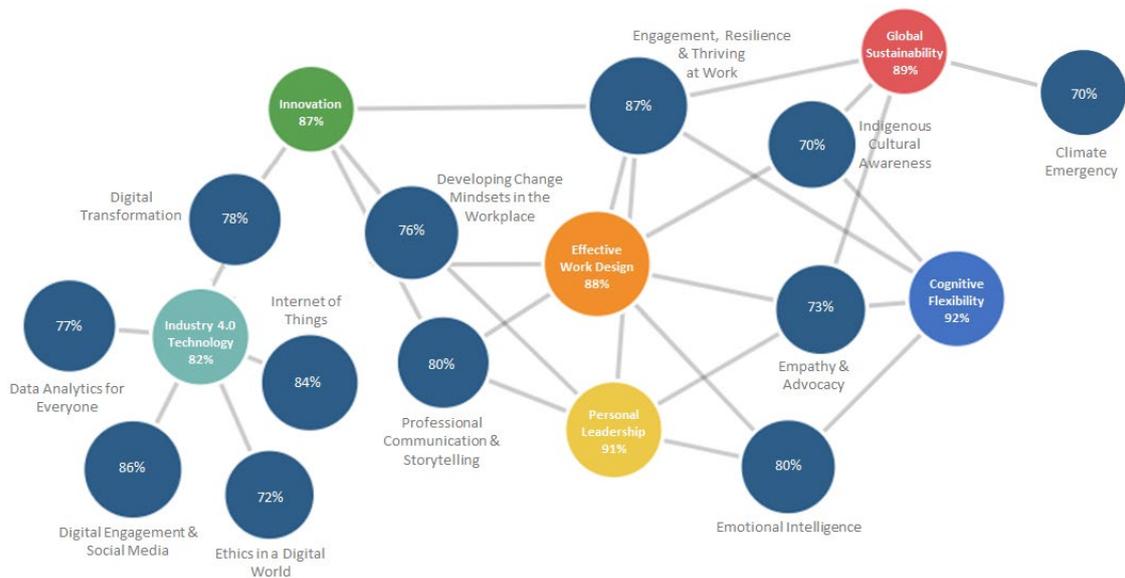
Figure 4: Percentage of respondent interest, engagement levels and preferences for duration, mode and level.

Topic	% Interested	Engagement Level				Duration			Mode			Level	
		Not Engaged	Observer	Participant	Changemaker	<= 1 Day	5 Days	3+ Months	Online	Local Campus	CBD	Overview - Broad	Broad - Deep technical
Cognitive Flexibility	92%	3%	34%	52%	12%	85%	45%	35%	54%	50%	46%	87%	55%
Personal Leadership	91%		28%	56%	16%	87%	39%	30%	52%	52%	48%	84%	79%
Global Sustainability	89%	7%	60%	30%	4%	3%	44%	36%	59%	52%	37%	91%	50%
Effective Work Design	88%	5%	48%	38%	9%	84%	44%	35%	49%	45%	53%	86%	66%
Innovation	87%	2%	32%	52%	14%	86%	44%	32%	53%	45%	41%	88%	60%
Engagement, Resilience & Thriving at Work	87%	6%	39%	33%	22%	85%	46%	32%	58%	48%	53%	89%	82%
Digital Engagement & Social Media	86%	4%	53%	30%	13%	84%	46%	29%	59%	41%	49%	81%	81%
Internet of Things	84%	3%	54%	27%	16%	82%	47%	33%	59%	45%	43%	86%	64%
Industry 4.0	82%	6%	59%	25%	10%	85%	46%	30%	52%	41%	48%	92%	53%
Emotional Intelligence	80%	1%	20%	46%	33%	83%	49%	33%	52%	42%	57%	75%	74%
Professional Communication & Storytelling	80%	1%	25%	49%	24%	85%	50%	34%	58%	49%	51%	88%	70%
Digital Transformation	78%	3%	52%	30%	15%	84%	49%	32%	57%	47%	47%	78%	67%
Data Analytics for Everyone	77%	4%	49%	31%	17%	83%	52%	34%	58%	45%	45%	80%	56%
Developing Change Mindsets in the Workforce	76%	3%	24%	54%	19%	84%	48%	34%	52%	44%	54%	79%	70%
Empathy and Advocacy	73%	6%	50%	34%	10%	82%	48%	35%	51%	51%	47%	86%	57%
Ethics in a Digital World	72%	3%	51%	30%	15%	84%	47%	32%	59%	43%	46%	89%	57%
Climate Emergency	70%	7%	51%	31%	11%	82%	46%	36%	55%	52%	47%	86%	50%
Indigenous Cultural Awareness	70%	3%	50%	37%	10%	85%	47%	35%	59%	48%	48%	88%	57%

■ Most preferred by % ■ Notably high % compared to other topics

The topics shown in Figure 4 are a combination of the top 18 most popular topics tested in the survey. Represented differently in Figure 5 we observe the interest in these topics as a balance of interest across the Future Skill Areas and an overwhelmingly high level of interest in the Future Skill Areas as topics themselves.

Figure 5: Curated topics and respondent preferences



VALUE FOR INDIVIDUALS

Transforming work impacts organisations and the people who work in them. Survey respondents described factors they seek in learning that offers them value.

Revel in diversity

No two survey respondents had the same demographic, professional and learning preferences. All were interested in developing their capabilities, and 75 per cent sought to develop in topics across all six Future Skills Areas. The typical respondent was interested in 27 topics. They had diverse aspirations and preferences. Valuable learning provides flexible choices to diverse careers and lives.

Relevant, applied, employer supported

Respondents genuinely seek to develop their capabilities to be effective. Learning must be relevant and immediately applicable to their work context. Amidst change, individuals seek signs of security: we received 12 comments related to respondents wanting their learning to integrate with their work and 78 per cent of respondents seek employer financial support for valuable learning experiences. Skills development comes to the fore in times of flux.

Learning as progression, not conclusion

Change is constant. We know lifelong learning is vital to adaptability in a dynamic world. But respondents also seek sustainability and clarity. Sentiment analysis highlights the need for trusted advice and support to develop curated pathways for progression. They seek a focus on “just in time” rather than “just in case”. This helps with sustainability, agility and quickly realizing value from learning.

Insight + Experience = Applied Expertise

Valuable learning experiences take place at the nexus of cutting-edge thought leadership and deep practitioner expertise with respondents clearly aligning their skill aspirations with the demand for people who make informed and

positive impact. Dealing in abstractions isn't the same as learning and neither is reciting war stories from a world that may no longer exist. This emphasis is critical for individuals to build trust in the learning experience, and to optimise for their uniqueness.

Convenient and integrated

We all balance competing demands for scarce resources. Respondents highlighted the challenge to integrate learning in their professional and personal lives. 93 per cent of respondents sought experiences 5 days or shorter, 60 per cent prefer online offerings, and 57 respondents elaborated what convenient means to them. Valuable learning is built around learners, not providers.

Accredited and recognized

Survey respondents want their learning recognised; 81 per cent want the option to obtain academic credit and awards. But these awards need to reflect the uniqueness of individuals and the diverse learning experiences they accumulate. There is great potential for individuals at the intersection of industry and applied academia with shared approaches to value.

Designing your career and life

Respondents expressed a clear desire for training focused on their careers and employability. Some respondents highlighted a need to improve personal performance and manage the logistics of job applications. There's room here to proactively build capacity in professionals to drive their performance, careers and more satisfying lives.

THE FUTURE OF WORK IS NOW

Organisations seek to develop workforce capability by:

- orienting professionals to new and changing industries
- deepening technical expertise to leverage new technologies and approaches, and
- broadening professionals to tackle new challenges, teams, projects and businesses.

How can you nurture agility and adaptability? How will you foster a willingness to innovate for tomorrow amidst today's uncertainties? The future of work is already here.

Adapt, sustainably

Global pandemics, technological change, resource scarcity, climate change, demographic shifts and changes in the geopolitical landscape make for dynamic environments. Applying the culture, processes, business models and technologies of the internet era to organisational purpose relies on skilled employees who continuously, and sustainably, adapt.

People steer long-term productivity

If technology adoption, use and diffusion are long-run drivers of productivity, then skilled people steer that engine.⁷ Long-term productivity advances require talent investment to move from the periphery to the core of business strategy⁸ because when work and learning are aligned and complementary

it generates higher returns than work or learning alone⁹.

Cost-benefit balance

Workforce skills investments drive financial and sustainability performance. For organisations, reskilling and upskilling strategies will be critical if they are to find the talent they need and to contribute to socially responsible approaches to the future of work¹⁰.

In the past, few organisations have had the systems needed to measure return on talent investment. However, findings from research and model development conducted in partnership with the World Economic Forum, are helping to quantify the wide scale impact of success or failure of such strategies.

Organisations are now being urged to harness new analytical capability to optimise upskilling and redeployment paths for efficiency and economies of scale.¹¹

Design-in benefits for a thriving economy

How many benefits can we layer into our own transformation agenda so we can give some of those benefits away?¹² Instead of fearing talent competition, lead by designing in solutions to solve skills gaps in your own organisation and help to stabilise outcomes for business and the economy. Upskilling people, whether they remain at your organisation or not, can ultimately benefit your organisation.

⁷ Productivity Commission, *Shifting the Dial: 5 Year Productivity Review*, (2017), 85.

⁸ Dulin, *As pressure to upskill grows, 5 models emerge*, (2019), <https://www.forbes.com/sites/allisondulinsalisbury/2019/10/28/as-pressure-to-upskill-grows-5-models-emerge/#76a3a075680c>

⁹ Jassal, *The new learning economy and the rise of the working learner*, (2016), 45.

¹⁰ World Economic Forum, *Towards a Reskilling Revolution: A Future of Jobs for All*, 2018, p.1

¹¹ World Economic Forum, *Towards a Reskilling Revolution: Industry-Led Action for the Future of Work*, (2019), p12

¹² Simpson, *Episode 2: Kate Raworth on 'Doughnut Economics'*, (2017) <https://thenextsystem.org/learn/stories/episode-2-kate-raworth-doughnut-economics>

GET CLARITY

Curtin helps individuals and organisations embrace the challenges and opportunities of our changing world of work. Talk to us about how we help professionals develop their capacity and lead effectively.

Stackable credentials at Curtin

We're launching Curtin Credentials: bite-size professional development modules to help you specialise in your discipline or take your career in a new direction. When you complete a Curtin Credential, you'll earn a globally recognised digital credential that's visible on platforms like LinkedIn. Your commitment to continual learning will be evident to employers everywhere! Express your interest and for more information contact us at curtincredentials@curtin.edu.au

Curtin's Future of Work Institute (FOWI)

FOWI shares leading-edge research across six thematic programs which intersect and contribute to the overall mission of thriving in a digital age. FOWI also leads the Industrial Transformation Research Hub initiative. For more information on future skills and partnership opportunities visit the [FOWI website](#).

Professional and Continuing Education

Curtin Professional and Continuing Education (PACE) offers learning experiences designed to help you and your organisation succeed in the changing world of work. We help professionals broaden their skills to lead people and projects, and deepen their expertise to drive value from new insights and opportunities. Visit the [PACE website](#) for more information or reach out to curtin.pace@curtin.edu.au

Executive Education

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Online short courses

Curtin offers a range of short courses through edX. Some edX courses map onto Curtin postgraduate degrees, so you can extend your learning and earn a postgraduate qualification. Options include free short courses, known as MOOCS, MicroMasters programs and professional certificate programs. Visit the [online courses website](#).

Unique facilities

Curtin helps people and teams learn in ways that engage the changing world of work. Here are some of our unique facilities. Ctrl+Click to visit these webpages: [Take a Virtual Tour of Perth Campus](#); [Innovation Central Perth](#); [Social Media Agency](#); [Trading Room](#); [Management HQ](#); [The Hive](#); [Curtin Institute for Computation](#); [WA Data Science Innovation Hub](#)

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