



Australian Government

**Australian Public Service Commission
Digital Transformation Agency**

APS DIGITAL PROFESSIONAL STREAM STRATEGY

**To lift the digital expertise of the APS workforce,
meeting long-term capability needs to transform
government services**





Contents

Context..... 1

APS context 2

What do we mean by digital?..... 3

Our starting point..... 4

The Strategy 5

Theme 1: Establish the digital profession 6

Theme 2: Leadership of the profession 8

Case study: Leading in the digital age program 9

Theme 3: Professional standards 10

Theme 4: Career pathways 11

Case study: Career pathways model 12

Theme 5: capability 13

Theme 6: Professional communities..... 14

Initial signature initiatives 15

 Targeted skills uplift..... 15

 Foundational skills for all..... 15

 Sample skills assessment..... 16

 Diversity..... 16

 Leadership and culture 16

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This document must be attributed as the APS Digital Professional Stream Strategy.

Context

Australia is well-regarded for its digital government. We are currently ranked second in the UN's e-Government Development Index, and have held this position for six years. Retaining this position will require the Australian Public Service (APS) to continue to build its digital capability. To this end, the Government's Digital Transformation Strategy highlights the impact of the digital revolution. One of its three strategic priorities is to create a government that is 'fit for the digital age'. This includes equipping the public service with the skills and digital ways of working that are needed to deliver world-leading services. Government's services are compared with those of leading private sector organisations, with the expectation that government services are as simple, smart and personalised. Government has made significant progress on our digital journey, however there is a long way to go. If we are to deliver the high calibre of digital services that Australians deserve, we need to act quickly and strategically to lift digital capability.

The need for digital skills is a challenge across the Australian economy. The Australian National Outlook 2019 predicts that the impending wave of digital technologies will further change the way people live, interact and work. The Australian Computer Society and Deloitte estimate that we will need 100,000 additional technology workers between 2018 and 2024. Data61's Artificial Intelligence Roadmap predicts we will need up to 161,000 extra AI specialist workers by 2030.

There are an estimated 10,000 people working in digital and ICT roles across the APS. By 'digital skills' we are referring to well-recognised, technology skills in ICT domains, and also the skills needed to design and deliver great digital services. This includes disciplines such as service design, user research and agile delivery management.

The expected growth in digital roles, and the increasing requirement for digital capability means we have a critical priority for establishing and progressing a digital professional stream strategy.

We must continue to evolve quickly to ensure we have sustainable growth. This is critical to meeting the goals of the Digital Transformation Strategy and remaining competitive internationally.



APS context

The APS Review, released in December 2019, found that ‘the APS needs to accelerate its adoption of data and digital technologies to ‘deliver personalised, integrated and proactive services’ and ‘drive productivity and efficiency’. It also states ‘the APS lacks the ability to attract, retain and nurture high-quality talent and the level of consistent leadership across the whole of government required for a culture of innovation and change’.

The Review makes the case to develop a profession that ‘prioritises development and retention of core in-house capabilities’. In its reply, the Australian Government committed to delivering a digital profession in 2020. The digital profession follows the HR profession, that was launched in late 2019, and will be accompanied by a data profession later in 2020.

The Digital Transformation Agency (DTA) has been exploring how this profession can improve digital skills in government, having met with over 100 people across government agencies, industry, academia and professional organisations. Informed by this research, this Strategy summarises our findings and progress so far, and articulates next steps to develop the profession. The profession aims to ensure government has the right skills to deliver world-leading digital services. It will do this by better attracting, retaining, developing and deploying people with digital skills.

The focus on our digital leadership and workforce signifies the urgency of addressing our digital skills shortage. It aligns with the complementary priority work in progressing a whole-of-service workforce strategy.

Our data literacy and analytics capability is connected to digital capability. We recognise the need to consider the two professional capabilities while we create separate streams to ensure we have undivided focus on each priority area.

What do we mean by digital?

A leading digital government delivers its services based on the needs of people and businesses, by harnessing technology and new ways of working. It means applying new mindsets, skills, processes and tools to create a culture that is fit for the digital age.

This aims to produce more responsive policy, less red tape and simpler, personalised services. The digital profession includes both ICT capabilities and human-centred capabilities such as service design. It will help attract and develop the skills and mindsets needed in the APS to deliver on government’s digital service delivery goals.

A data profession is due to be launched later in 2020. There are close linkages between digital and data, that will be more clearly defined as the data profession is developed.



Our starting point

The digital profession will leverage and enhance existing digital capability programs. The DTA and APSC have partnered to deliver whole-of-government digital capability programs that have led to:

- The Leading in a Digital Age program, that has trained almost 300 senior executives to lead change through digital ways of thinking and working.
- A career pathways framework, that maps the skills needed to succeed in 150 digital roles.
- The Australian Government's first Digital Summit, with over 700 attendees from across government, industry and academia.
- Emerging Talent Programs that attract graduates, cadets and apprentices into the APS. There have been almost 1,400 participants since the program commenced in 2007.
- The Women in IT Executive Mentoring program (including coaching circles) to lift representation of women in digital leadership roles. There have been 730 participants since the program commenced in 2007.
- A new capability development model that is creating a cycle of continuous learning, based on career pathways, on-the-job coaching, and leading change.

The Strategy

The Digital Professional Stream Strategy (the Strategy) is a structured way to build and uplift the core digital expertise of leadership and the workforce, and specialist expertise in digital roles. This will be done collaboratively across the APS to ensure we have a cross-agency approach to delivering government services.

It is a deliberate approach to setting professional standards, implementing digital career pathways and addressing digital skills gaps. It will create networks and ways to strategically recruit, develop, grow and retain talent in digital leadership and the digital capability of our workforce.

To achieve this, the strategy has six broad themes:

- Establish the digital profession.
- Leadership of the profession.
- Professional standards.
- Career pathways.
- Capability.
- Professional communities.

The themes are supported by initial signature initiatives to bring the strategy to life, create momentum from which it can mature. These initiatives will form the basis of the digital profession over its first year.

We will take a design-led approach to delivering this Strategy. This means we will learn, adapt and grow from our experiences and your feedback over the first year.

The strategy takes account of international experiences and lessons learned in the UK, Singapore and Canada.

The strategy has also been informed by what we have learnt over the last two years, including extensive research across sectors and tiers of government.

The partnerships forged with industry, government, the community and academia will continue to help inform and iterate the digital profession.



Theme 1: Establish the digital profession

Objective 1: APS has a new APS professional stream and APS Digital Head of Profession

1. Establish reference group

The Digital Leaders Group – Executive has been appointed as the reference group for the profession. This group comprises senior CIOs from across government, senior officials of central agencies, and is chaired by the CEO of the DTA. The group will guide and champion development and implementation of the new APS digital profession, in alignment with the evolving professions model. Membership can evolve to allow a diverse range of agencies to contribute to the reference group.

The reference group will be supported by the APSC, particularly in relation to the design of strategic interventions to address digital skills gaps for leaders and the workforce.

2. Develop a digital professional stream strategy

This strategy has been developed to stand up a digital professional stream that is cross-agency, collaborative and guided by the reference group. It is informed by domestic and international experience and best practice.

The strategy includes some practical initiatives that align to government's Digital Transformation Strategy, that sets a path to world-leading government services.

Progress against the strategy will be reviewed at six and then twelve months, to ensure it continues to deliver on its intended outcomes.

3. Engage with industry, academia and other governments

We will engage and collaborate with industry, other governments and academia to explore opportunities for partnership in innovative approaches to build capability, e.g. mobility. We will aim to use existing channels, such as the Australian Data and Digital Council. This will inform future iterations of the digital profession.

4. Identify Digital Head of Professional Stream

Secretaries Board has selected an SES Band 3 with established credibility in the digital profession. The Digital Head of Profession will champion the digital profession and will not have any formal authority over agency head decision making.

The Digital Head of Profession will ensure alignment of the digital profession with the broader professions model. This includes supporting linkages with other professional streams.

5. Develop a sustainable, long-term funding model that recognises the value to agencies

The DTA, supported by the APSC and other agencies, will coordinate and collaborate across agencies to engage and support the APS Digital Head of Profession.

The APS Digital Head of Profession will seek to align DTA capability work to digital professional stream priorities.

Learning from implementation of initiatives, we will develop a cost-recovery funding model that reflects what agencies can expect through operation of the digital professional stream model.

Theme 2: Leadership of the profession

Objective 2: APS has the leadership culture for digital transformation in the APS

6. APS Leaders

The APS Digital Head of Profession will harness the support of people in top leadership roles in the APS. The APS Digital Head of Profession will work alongside senior leaders in the APS to embed and showcase good digital capability.

The APSC and the DTA are delivering the Leading in a Digital Age Program for SES officers. We will continue to roll this out and adjust it as needed. This will include expanding services to state and territory governments.

We expect APS leaders will embed this training in their teams, encourage cross-agency collaboration and to role model the mindsets, attitudes and behaviours needed to embed the culture we need to meet the government's expectations for service delivery.

APS leaders will be expected to embed digital skills in their work areas. Working digitally is not a technology-centric issue. Our leaders need to have the mindsets, attitudes and behaviours to support a culture of digital transformation across the service. Leaders are our advocates.

The recruitment and development of digital professionals should be top of mind for our leaders who see digital skills as valuable assets for the APS. Similarly, leaders need to foster digital ways of working in their teams, and provide them with the foundational skills needed for this to succeed.

We will include specialists in relevant disciplines as advisers on agency selection panels for key leadership roles in the digital stream.

Case study

Leading in the Digital Age

The Leading in the Digital Age program was developed under the Building Digital Capability program which was an initiative under the Modernisation Fund. The APSC and DTA designed the program to be an immersive experience for SES leaders, to help them understand where they are on their digital age leadership journey and how their actions and behaviours affect the outcomes of the digital transformation of government services.

In 2019, the program had 160 SES enrolled, with an overall shift in capability of 61 percentage points. Ninety-six percent of participants said that they would recommend the program to others.

“ I intend to build on the design thinking and user-centric design pieces. These are one of the key things I will take away.

Participant

A key shift in 2019, saw the program open up SES equivalent leaders in state and territory jurisdictions. Early indications are that the multiple levels of government add a richness to the learning and opens up collaboration opportunities.

Embedding the learning remains an issue for many SES. In response to this an alumni has been created and work continues on the best use of the alumni sessions to enable leaders to put their learning into action.



Theme 3: Professional standards

Objective 3: APS applies digital professional standards in the course of our business

7. Provide APS stewardship for digital professionals

Digital professionals have told us they need greater recognition of their skills and opportunities to use their skills more flexibly. Stewardship of digital professionals in the APS will help provide new opportunities to showcase and develop their skills, in line with government's agenda.

We will build a recognition framework for digital professionals, including celebrating their achievements through the Australian Government Digital Awards.

8. Lead and communicate the case for change

We will develop and communicate a shared understanding of what good digital practice look like.

We will work closely with people involved in delivering and benefiting from the profession so that it has the best chance of achieving its goals.

We will use simple, straightforward, generic language to ensure all people can relate to our descriptions.

We will listen to industry, business and the community to ensure we have the views and input from our diverse community into developing world-leading government policy and services.

9. Develop a code of service

We will continue to develop a digital professions code of service to ensure those in the profession meet thresholds for skills, attitude and aptitude. We will leverage existing standards among industry bodies and from around the world. A clear employee value proposition will help professionals recognise the positive social impacts of their work and encourage people who are ready and willing to adapt to digital roles of the future.

Theme 4: Career pathways

Objective 4: APS has a digital career pathway model to provide rewarding careers

10. Identified digital skills for roles

A common framework for skills assessment will help enable initiatives under the profession such as mobility and cross-agency capability uplift. The Building Digital Capability program has produced a career pathways framework, with skill definitions for 150 digital roles. These definitions include ICT roles, such as architecture and testing, as well as human-centred roles such as service design.

We have piloted the career pathways with the Department of Education, Skills and Employment. It has helped people to learn skills needed for newer digital roles. Participants have undertaken skills assessments that have produced career pathways. The pathways show how these individuals can transition to different or more advanced digital roles, providing a clear and tailored path for learning and/or development. Capability has been developed through on-the-job coaching. Its success has been driven by a structured approach to co-design and change.

The model can scale by training people to apply career pathways, coaching and change leadership. We are exploring how this model could help government lift skills in ERP development and we are working with the Department of Finance to progress this initiative.

11. Linking roles, skills and learning

User research is underway to find a tool for correctly linking learning opportunities to skills development needs identified through career pathways. This is being referred to as a career pathways tool.

Eventually, a tool like this would aim to provide an online repository of roles, associated skills, and linkages to learning solutions to develop people's capability.

12. Mobility as a career pathway

We will explore options for mobility across the APS and in/out of the service to broaden people's knowledge and skills. This will help bring and retain the best and brightest talent in the APS.

The reference group will help promote mobility opportunities.

Case study

Career pathways model

The DTA and the APSC commenced the development of a career pathways model as part of the Building Digital Capability program. The career pathways model was designed to help with the retention of digital talent within the Australian Public Service. At present digital practitioners generally only stay in the service for 2 years, citing that their skills are not recognised and they do not see clear career progression within the service.

Using recognised international skills frameworks such as Skills For the Information Age (SFIA) and Chartered Institute of Information Security's (CIISEC) framework, we worked with over 115 people from across the APS and mapped out 150 digital roles.

Defining roles in terms of the skills needed helps show the correlation between roles. This allows us to develop career pathways that go across disciplines as well as showing progression within disciplines. For example, it shows that digital testing roles have skills overlap with user research roles. Therefore, giving someone who is currently a digital tester options to not just progress within their current discipline but a path to expand their knowledge and skills in the user research discipline.

People have more skills than their current role. By assessing someone's unique skills – and not assuming skills based on their current role – the career options expand even further. The number of role options broadens and highlights new opportunities.

We also found the same data can be used to help agencies. In their workforce planning, agencies are trying to understand their workforce needs and how to fill them. The framework can compare an in-demand role with existing roles. This enables agencies to see how they could fill an in-demand role, and the minimum, critical areas to invest in capability development.

We are exploring how to link in the behavioural standards required to complement the skills assessment. We are also looking at how to link people to learning opportunities based on their tailored learning needs and career goals.

The career pathways framework is openly available at: <https://data.gov.au/data/dataset/51705424-d531-4d81-b69d-23ed9f964930>

Theme 5: Capability

Objective 3: APS develops and grows digital capability in line with professional standards and career pathways

13. Assess digital skills

We have conducted research on skills and aptitude assessment methods for digital roles, under the Building Digital Capability program.

We will explore using an aptitude assessment instrument alongside skills assessments (such as the skills defined under the career pathways framework). This will help professionals recognise development opportunities to help deliver better services.

Programs developed under Building Digital Capability will be expanded and delivered to agencies on a cost-recovered basis – such as the development of career pathways for practitioners, and agency-level insights into digital skills.

People learn best within a culture that allows them to make mistakes and be supported through the learning process; in an environment that supports individual learning within the operational context, rather than separate. Competing priorities often make it difficult to commit to learning, with high service and delivery needs overriding time set aside for professional development. Models such as Capability Cubed will support a cultural shift so learning can be practiced and applied in-place. More information on Capability Cubed can be found here: <https://www.dta.gov.au/blogs/future-work-learning>

14. Building and growing capability

We will progress the sourcing of training programs for digital roles.

We will explore cross-APS recruitment for key digital roles.

We will continue to deliver coordinated entry level programs to digital roles through the DTA's Emerging Talent programs – including apprentices, cadets and graduates.



Theme 6: Professional communities

Objective 6: APS has digital professional communities that share knowledge and insights

15. Support the digital professional community

Specialist communities will be delivered for certain disciplines such as Cloud and Service Design.

We will identify specialists in these disciplines and ask them to steward the discipline. Connections like this can lead to greater mobility to create opportunities for on-the-job learning, while acting as a way to recognise professional skills.

The focus will be on supporting digital professionals to collaborate and learn, and share knowledge, experience and better practice. Networks will have a national reach outside of Canberra.

We will establish a complementary and accessible online repository of professional information.

16. Learning by sharing

We are exploring options to host a Digital Summit and Awards event again in 2020. It is important to publicly recognise great mindsets, attitudes, behaviours and results.

Case studies have been shown to be an important way to share successes and learnings. These will be highlighted and shared across the service, through the Summit and other channels.

Initial signature initiatives

Establish the Profession

The APS Digital Head of Profession has been appointed by the APS Secretaries' Board, and this Strategy has been endorsed. In making these decisions, the most senior leadership groups across the service sign up to supporting the evolution of the digital professional stream and practical initiatives that lead to real, sustainable action.

This Strategy identifies what the digital professional stream looks like today in the APS, and it will evolve to draw on the best international, industry and state/territory models. This picture will lead to being able to identify our gaps in capability and to design an operating model for the future.

This will take an iterative approach involving key stakeholders.

Targeted skills uplift

There is an immediate need to lift some critical, advanced digital skills such as embedding cloud environments. The Building Digital Capability program has produced sustainable and effective learning models such as Capability Cubed. These will be applied, on a cost-recovered basis, to improve the APS' capability in these areas. We will focus on one skill to begin with, and expand sustainably to other skills identified as core priorities.

Foundational skills for all

Foundational digital skills are needed by almost everyone working in the APS today. Access to basic digital skills will be provided and/or facilitated with the market (reducing costs to agencies). This would cover core skills such as working in agile teams and basic user research.



Initial signature initiatives

Sample skills assessment

We will trial a digital skills assessment for a sample of 100 volunteers from across the APS.

The Building Digital Capability program produced a career pathways framework. This framework helps people to assess their current skills, and explore options to develop into digital roles. The framework can adapt to use different databases of skills. We will draw on global frameworks to describe the skills and competencies for professions working Information and Communication Technologies, software engineering and digital transformation. This creates a common language across industry, government and academia.

Our volunteers will include a mix of APS roles and levels across agencies.

We will use a skills assessment tool to help them identify their proficiency levels, skills and gaps.

This will help them develop an individual development plan and digital career pathway options.

More broadly, we will be able to assess the 100 people and produce insights into that particular cohort of APS employees. This will help develop a broader picture of the APS digital workforce.

This process will also enable us to test the skills assessment tool and the skills assessment process.

Diversity

The development of an employee value proposition can help make the APS an employer of choice. A structured approach to uplift digital capability will help identify the skills we need, helping us to design jobs, capability development and a work environment that attracts and retains the skilled people we need for the future. This includes improving the diversity of our digital workforce.

Working in digital ways, and using modern technology, may introduce new ideas for work design and workplace flexibility.

The digital profession will value people across the profession and from other disciplines. It will recognise the value that diversity brings to the APS' ability to deliver the best outcomes for the people and services of Australia.

Initial signature initiatives

Leadership and culture

Leadership

Our APS senior executive (SES) are expected to exemplify the changes needed to lead in the digital age. This includes immersing themselves in digital training and development opportunities like the Leading in a Digital Age Program. However, it is not enough to just attend the training. We need the SES to foster an environment where agile teams can experiment, collaborate, learn, get quick feedback from users and stakeholders and deliver better outcomes, sooner.

Our leaders need to show their own abilities to lead well in new, changing and ambiguous situations, using their ability for whole-of-systems thinking in an adaptive and agile public service.

There are some key roles where we need relevant professional credentials. Agency Heads will be encouraged to include digital professionals on selection panels for key leadership roles. They will be professional advisers to the selection panel.

Leadership is not only the domain of senior executive. In the digital age, there is more opportunity for everyone to take an active role in inspiring and leading change. Recognising this, we will also explore a reverse-mentoring program. Participants in the DTA's Emerging Talent program will be matched with senior executive to shed new insights into how to design and deliver better government services.



Initial signature initiatives

Leadership and culture

Culture

We will acknowledge and champion the achievements of our leaders. There is a need to showcase best practice across the service. This supports change and enables other leaders to adapt.

We will champion the role of all our people in being leaders of change and co-creators of a culture that enables collaborative and adaptive ways of working. Cultural leadership belongs to everyone and the profession will set expectations and guidelines to support agencies to bring people together to solve complex problems. We don't yet know what the jobs of the future will be or what skills will be required, so we need to future-proof our workforce and workplaces. The need to attract, retain, develop and deploy people with current and future skillsets, means that we need to create a learning culture that values ongoing learning and collaboration as part of core business. This will enable the design and delivery of services that meet the needs of people and businesses.

We will expand this concept so that we can learn from others outside the public sector. Experiential learning from other government jurisdictions, the private sector, non-government organisations, and academia will enable leaders, as well as build lasting partnerships to accelerate the digital transformation of services to the people and businesses of Australia.

