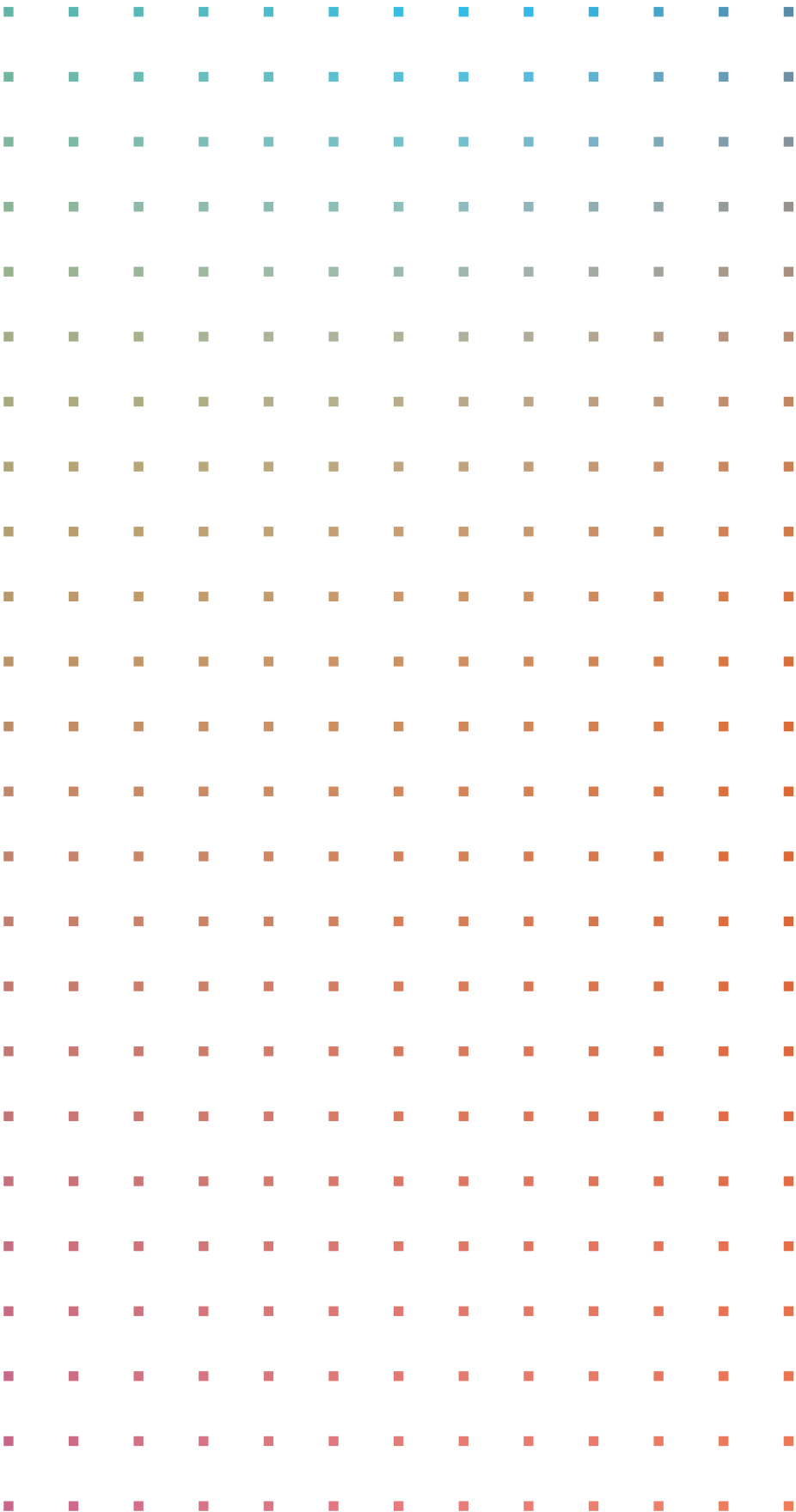


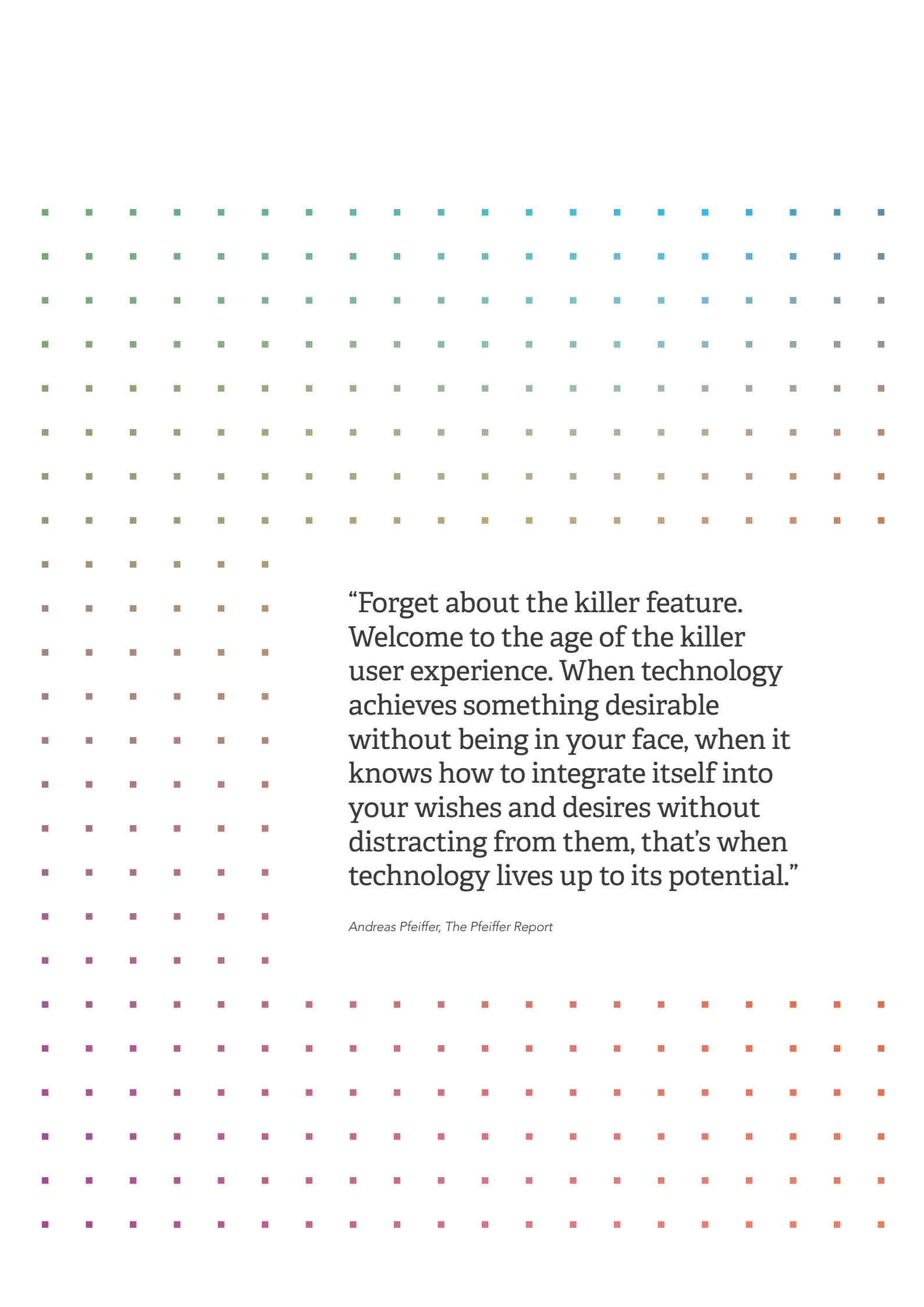
A guide to building
the business case for
user-centric thinking

NATIONAL STUDY

[Australian]
governments'
attitudes towards the
application of user
experience principles



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“Forget about the killer feature. Welcome to the age of the killer user experience. When technology achieves something desirable without being in your face, when it knows how to integrate itself into your wishes and desires without distracting from them, that’s when technology lives up to its potential.”

Andreas Pfeiffer, The Pfeiffer Report

In this report

Foreword [Thinking]	4	NATIONAL STUDY:	
About this document	6	Understanding UX within the government landscape	
User experience defined	7	Funding for digital services	8
		Why governments are now prioritising user experience	9
		TOOL KIT:	
		Making the case for UX adoption	
		Understanding the barriers to UX adoption	10
		Overcoming opposition to UX adoption	14

NATIONAL STUDY:

National UX maturity snapshot

Measuring government agencies' UX maturity	18
Variations in the whole-of-government approach to UX thinking	20
Measuring WofG UX maturity	22

TOOL KIT:

Building UX capabilities

Analysing your agency's UX maturity	26
Exercise: UX maturity audit	28

NATIONAL STUDY:

UX in practice

Government perceptions of UX budgets	30
Value in conflict: time versus usability	30
Common approaches to exploring user insights	31
The emergence of life journey mapping	32

Conclusions	34
About this report	36
Bibliography	37

Foreword [Thinking]

Why is User Experience (UX) important from a business perspective?

I think Robert Pressman explains it best, in that “for every dollar spent to resolve a problem during product design, \$10 would be spent on the same problem during development, and multiply [this] to \$100 or more if the problem had to be solved after the product’s release.”

Simply put, every dollar invested in good UX has the potential to return between \$10 to \$100.

It’s a pretty compelling argument for investing in the science of making things easier to use.

Good digital solutions – no matter their construct – always put the needs of users first. By doing so, product designers create a powerful and positive subconscious impression that keeps users coming back for more.

Embedding UX ensures that processes are consistently applied in a methodical manner, with decisions backed by data and research.

Integrating UX design with GIS is a natural step given the latter’s roots, which many would argue began with the ground-breaking work of Ian McHarg.

Author of the highly acclaimed *Design with Nature*, the Scottish landscape architect explores less conventional approaches to land-use, outlining the layering of large, complex spatial data.

For McHarg, it was about making policy and design choices relating to a site’s “fitness” or “suitability” for various types of development, conservation, and restoration based on spatial analysis. It’s a concept that gave rise to today’s GIS technology.

Given how essential UX is – with many private entities embracing and championing it – it’s surprising to see how many Australian government agencies are well-behind in its implementation.

Yes, at least initially, there may be a need to set other priorities at project launch, but – as this report explains – this decision usually comes at a cost.

It’s not all doom and gloom though. In identifying the challenges faced by the government in adopting UX, this study has also unearthed the solutions to address and overcome them. This includes exploring the expectations around the anticipated costs and preferred types of UX services.


Whether you’re new to this field or just getting started, by the end of this report you’ll have acquired the key insights and figures that will solidify your position in championing greater application of user-centred thinking.

Ideally, you will be armed with a clearer understanding and the necessary tools to build a solid business case for its inclusion – within and beyond the government sphere.



Shannon Stavrou

*Principal Consultant
UXG Consultancy, Esri Australia*



Embedding UX ensures
that processes are
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About this document



The notion that digital products and services should be designed around the user – not the organisation’s internal functions – is well-supported within the public sector.¹ However, governments have often struggled to remain faithful to this notion during the planning and design process, risking the delivery of products and services that fail to meet the needs of users, or even contribute to expensive, high-profile project disasters.²

“The government’s vision for digital transformation starts with user needs. Users include individuals, businesses and their representatives, service providers and agencies.”

*Digital Transformation Agency,
Whole of Government Transformation Vision⁵*

As governments increasingly rely on digital modes of service delivery – in the interests of reducing expenditure³ and providing personalised services – pressure to ensure applications align with the individual needs of users will only increase.

User experience (UX) methodologies fundamentally employ a client-centric manner of thinking.

UX best-practice involves the merging of multiple disciplines, including engineering, marketing, graphical and industrial design, and interface design, in the configuration of services and products to meet the needs of end-users.⁴

This report examines the maturity of the public sector in incorporating UX methodologies in the development of digital products and services. It explores both the drivers and barriers to government adoption of UX methodologies, providing insight into the expectations (from within agencies) around the anticipated costs and preferred types of UX services.

Finally, this document serves to provide digital and IT professionals, project leaders, customer engagement strategists, and their executives, with the insight and tools to build a business case for the inclusion of UX methodologies in application development.



User experience defined

The definition of ‘user experience (UX)’ selected for this report comes from Don Norman and Jakob Nielsen – founders of the well-respected user experience research training and consulting group Nielsen Norman Group.

Norman and Nielsen understand UX to be the holistic discipline that results in the “seamless merging of the services of multiple disciplines, including engineering, marketing, graphical and industrial design, and interface design.”

Something that has been designed through a UX lens will invariably meet the needs of a user without fuss or bother and will also go beyond a user’s conscious wants or checklist of features.

User experience and user interface (UI) do not have the same meaning and distinguishing between the two is key to understanding UX. UI is a separate field of expertise that refers to the discipline of designing a visual interface for the user. Meanwhile, UX encompasses the disciplines that contribute to an end-to-end user experience. It is often the case that a UI designer will leverage the work of a UX specialist in creating the look and feel of a software interface.

However, the discipline of UX is not just associated with web and app development. The achievement of a seamless end-to-end user experience can be jeopardised by applying UX techniques to distinct tasks in isolation. An example of this is applying UX to an app build, when a more comprehensive application of UX principles to the entire business process may have found that the app was not actually required in the first place.

As the discipline is still relatively young and rapidly evolving, consensus on the terminology used to describe UX is still forming. Terms such as ‘design-thinking’, ‘usability’, ‘human-centric design’ and ‘user-centric design’ are considered interchangeable when discussing ‘user experience (UX) design’.

With regards to the term ‘user experience’ – as presented in this paper – an inclusive definition has been adopted.

“User experience encompasses all aspects of the end-user’s interaction with the company, its services, and its products.”⁶

*Don Norman and Jakob Nielsen,
founders of Nielsen Norman Group*

Understanding UX within the government landscape

Funding for digital services

According to Intermedium analysis, government agencies at the federal, state, and territory level will spend an estimated \$23 billion across all categories of ICT (including hardware, software, telecommunications, IT services and labour hire) in 2019-20.

Of this \$23 billion, almost \$1.7 billion will be allocated via these jurisdictions' 2019-20 budgets for ICT initiatives of a digital services focus. The remainder (or \$21.3 billion) of the estimated ICT spend will predominantly be sourced from the business-as-usual (BAU) allocations that agencies apportion from their annual operational and capital expenditure budgets for ICT purposes⁷.

“[The public are] digital natives that expect things online and won’t stand for poor design.”

Executive Director, Information Systems

It is estimated that over **\$12 billion** will be spent on digital initiatives by government agencies in 2019-20

Beyond the \$1.7 billion that can be identified in budget allocations, it is not easy to quantify the proportion of the remaining \$21.3 billion that agencies will allocate to digital services. However, as IT services and labour hire are the two largest areas of government spending on ICT, Intermedium conservatively estimates that at least a further \$10.65 billion (i.e. 50%) will be spent in 2019-20 on digital services, sourced from BAU funding.

Looking ahead, as jurisdictions work to meet the growing demand for public services in the context of an aging population and rising citizen expectations, investments in digital services are predicted to compound.

Figure 1. Australian Government Initiatives Funding for Digital Services (\$M)

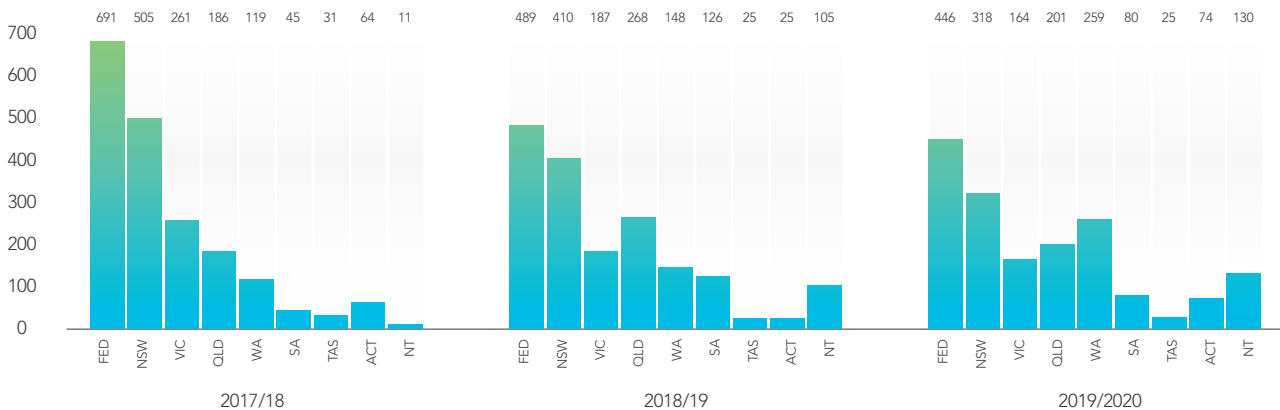


Figure 1: Allocation for digital services initiatives in federal, state and territory budgets. Digital services were sourced from Intermedium’s ICT initiatives database, compiled from government budget papers each year. Initiative funding is quarantined for a program of work and differs to business as usual sources of funding, which agencies have discretion to allocate.

Why governments are now prioritising user experience (UX)

UX planning and design (and its many other affiliate labels) have reached buzz word status and have infiltrated into the mainstream consciousness. The proliferation of UX thinking can be at least partly explained by the popularity of companies such as Apple, who openly attribute their success to the deeply embedded design focus within their organisations.

This new consciousness has resulted in users of government products and services comparing their experience to that provided by the private entities that they interact with daily. It is apparent that many Australian government agencies are still well behind the private sector in respect to delivering intuitive products and services.

Nearly all interviewees who participated in the Intermedium study took the view that a focus on user-centric design was the only means through which government agencies could successfully align products and services with public needs and expectations.

Nearly all interviewees viewed user-centric design as the only means to align products and services with public needs and expectations

While moving away from systems-centred or process-driven design represents a big shift in thinking for many government agencies, it is nonetheless an essential step to facilitate higher user adoption rates and project success.

Unfortunately, as the research also reveals, this step too often only follows an 'aha moment' – such as a failed project or highly publicised overspend of public monies.

Figure 2. Percentage of Australian Government ICT Initiative Funding for Digital Services (%)

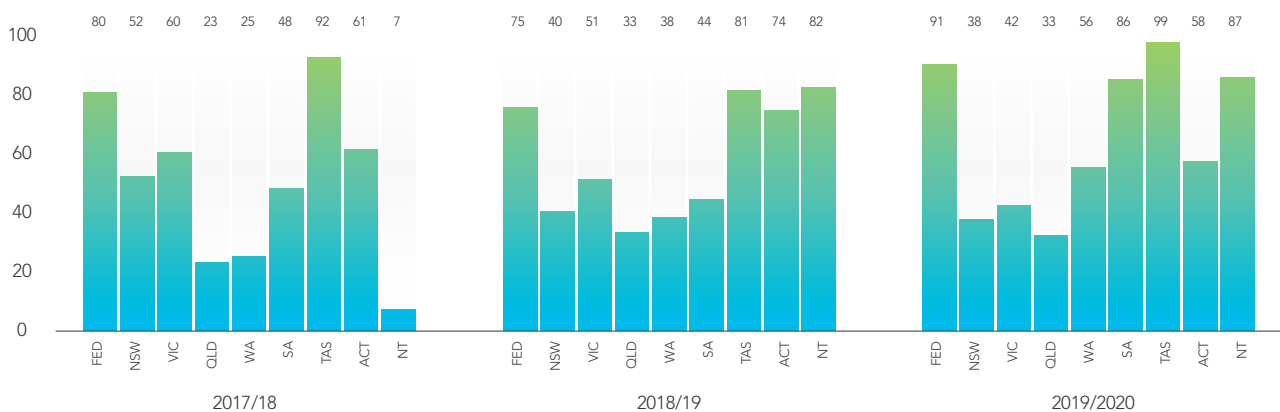


Figure 2: Allocation for digital services initiatives as a percentage of total ICT initiative budgets in federal, state and territory jurisdictions. Digital services were sourced from Intermedium's ICT initiatives database, compiled from government budget papers each year. Initiative funding is quarantined for a program of work and differs to business as usual sources of funding, which agencies have discretion to allocate.

Making the case for UX adoption

In this section:

Understanding the barriers to UX adoption | Overcoming opposition to UX adoption

Understanding the barriers to UX adoption

When it comes to building a business case for UX adoption, it's important to first understand the common barriers – both attitudinal and operational – you're likely to face.

Across all layers of government, public servants face the same challenge of operating in a complex and resource-constrained environment. Despite general support for the notion that users should be at the centre of application planning and design, these good intentions are often not realised.

An Intermedium study into Australian governments' attitudes to UX design, identified eleven major obstacles limiting the adoption of user-centred thinking. Each of the barriers have been listed here – along with the recommendations for overcoming them – provided by the study participants.

UX supporters and change agents at the C-suite level can make all the difference

1. Ingrained sceptics

Ironically, a history of success – delivering projects under a single, tried-and-trusted methodology – often stands as the greatest barrier to UX adoption.

Change is rarely sought or embraced when the status quo has worked. In these instances, a commitment to systems-centred or process-driven practices thrives – along with scepticism around the benefits of seemingly 'untested' delivery models.

Furthermore, a lack of familiarity with UX methodologies can be intimidating and/or alienating.

“It's just an ingrained culture of people who have been here for a long, long time, doing the same thing, over and over again.”

Customer Value and Pricing Manager

Solutions – Cultural and structural issues can be difficult to overcome due to their complexity.

Generally, interviewees agreed that small-scale trials and pilots helped develop interest and encouraged buy-in; as stakeholders were quick to see the value when taken along for the ride.

Furthermore, interviewees suggested that UX can be made more relatable by using less intimidating language like human centred design, rather than UX, as it's often referred to by those more familiar with the subject matter.

All conceded that when an agency's core service connected directly with the broader community – there was a greater preparedness to embrace user-centred thinking. Identifying the beneficiaries of UX serves to create clarity around its value.

For example, the importance of UX is clear in the transport sector, where citizens interact with services on a day-to-day basis and are increasingly expecting experiences that resemble those delivered by the private sector.

Internal UX advocates trying to promote the concept in the justice sector, in contrast, found it harder to build a case when offenders made up a substantial portion of their user base. As such, there is a focus on what one interviewee described as "victim-centric services", because victims are a group of users for whom the justice system is more inclined to invest, to improve the service experience.

2. Leadership void

While personnel on the ground may see the value in UX principles, the power to invest resources can be held by those distant to the project and unsympathetic to the cause.

“Leadership is key. As a senior executive, I need to find a way to keep things going without veering off back into the day-to-day activities. I think [it’s about] just having the right leader, the right culture and the willpower.”

Chief Information Officer

Solutions – UX supporters and change agents at the C-suite level can make all the difference. Although departments are starting to see the value of allocating whole-of-agency responsibility for UX to a senior stakeholder, their efforts can only go so far without the support of the leadership team.

It’s important to translate the value of UX into a language that connects with those making the decisions. Any business case for adopting UX methodologies needs to focus on the business/project outcomes and, more importantly, the pressing priorities of the decision-maker.

3. Disengaged stakeholders

UX design has been a concept that application developers, project managers, CIOs and customer experience professionals alike have mused over for decades; well before groups like Apple, Google, and Amazon brought the concept into the palm of our hands.

More recently, as an applied science, UX has largely sat in the ICT space. As a result, stakeholders outside the digital realm are often unaware of the enduring value of applied user-centred thinking.

“[Most people] didn’t come into government to solve software problems for humans. You have a massively different thing to ask if you bring people in and say ‘you need to have that digital native understanding implicit in how you do things’.”

Digital Customer Experience Manager

Solutions – Study participants recommended including all key stakeholders in UX research programs. Focus groups are perceived as great UX starter packs, as stakeholders from across an organisation and user base can participate – directly seeing the benefits of their involvement.

4. Bureaucratic processes

Agency workflows can be siloed, cumbersome and process (rather than outcomes) driven. This makes any kind of across-the-board change difficult.

“Internal processes such as procurement tend to limit the speed at which initiatives can be progressed and implemented.”

Senior Accessibility Officer

Solutions – Interviewees suggested that an independent specialist unit mandated to provide UX services across the entire agency can help drive agency-wide change.

In some parts of the country, governments are starting to disrupt established procurement models to make it easier to acquire new digital goods and services, such as UX services. The Federal Government’s Digital Marketplace⁸, for example, provides an ecosystem for government buyers to seamlessly connect with digital specialists such as UX experts.

Making the case for UX adoption (cont)

In this section:

Understanding the barriers to UX adoption | Overcoming opposition to UX adoption

5. Insufficient budgets

Digital projects often neglect to budget for UX research and design, reflecting the general undervaluing of this area. A lack of funding for UX programs is especially prevalent in agencies, jurisdictions and sectors that are fiscally constrained.

In Western Australia, for example, the Office of the Government CIO (now Office of Digital Government) had been struggling to secure funding for its operations. This had made it difficult for the unit to fulfil its responsibilities, which includes delivering on a Digital Service Policy that aims to provide high quality citizen-focused government digital services via support for agencies as well as their own cross-government digital endeavours (i.e. wa.gov).

In comparison, the New South Wales Government's WofG digital agenda had received generous funding – including a \$385.7 million funding stream to drive innovation and digital services in the 2018-19 budget⁹ – allowing the state to invest more in the user-centric aspect of its digital projects.

“We don't budget for UX design at all, which is a shame.”

Executive Director, Information Systems

Solutions – In the short term, several agencies have found ways of implementing UX design despite resource constraints. For example, South Australia and Western Australia have leveraged the DTA's Digital Service Standards and other tools and materials developed by governments with bigger budgets to supplement their customer-centric agendas.

Digital projects often neglect to budget for UX research and design, reflecting the general undervaluing of this area

6. Time constraints

There is a perception that incorporating UX planning and design into the project timeline can make it difficult to meet deadlines.

“One of the first things to drop off from the timeline is checking with users whether it is a good idea.”

Digital Customer Experience Manager

Solutions – This issue largely stems from an ideological clash between agile methodology advocates and UX supporters – with the rapid bursts of ideation that characterises agile development methodology being somewhat at odds with the slower, methodical, outcomes-driven pace of traditional UX activities.

Several study participants recognised a new approach to UX called 'Lean UX'¹⁰ that is more pragmatic, less deliverables-driven and is focused on providing quick, frequent feedback for the entire project team to respond to. Even if not formally implemented, Lean UX reveals there is a balance that can be struck between the two models.

7. Limited capabilities

Internal UX capabilities are often thin-on-the-ground within agencies.

“There are many progressive people – UX champions – but they have traditionally operated in pockets.”

Director, Digital Strategy

Solutions – In the absence of internal capabilities, study participants recommend agencies outsource UX services to a professional UX agency or to an app/solution service provider. The benefits of bringing in outside help includes access to up-to-date and expert knowledge, and the benefits of fresh, unfettered perspectives on a design challenge.

8. Misunderstandings about the user

“We’ve done one-on-one interviews to try and understand the culture of [the agency] from a CX perspective. One of the questions was ‘Who are your customers?’ and someone actually said our Chief Executive. He might be a stakeholder, but to define him as a customer is quite interesting.”

Customer Value and Pricing Manager

Misunderstanding the user can result in agencies asking the wrong questions or solving the wrong problems. This leads to subpar outcomes and wastage and undermines the value of product/service planning and design.

Solutions – Engaging UX professionals to design a user research program reduces the risk that the needs of users are misunderstood.

9. Misunderstandings about UX research and design

“Not everyone realises that UI is separate from UX. We need to educate people about the difference between getting a photoshop mockup of my website vs. understanding the service you’re delivering and what the user needs.”

Director, Technology Services

UX research and design is sometimes undervalued by personnel who mistake the discipline as being solely about the aesthetics of a digital interface.

Solutions – This is easily addressed through education and in many cases walking stakeholders through a user experience – from the perspective of the user rather than the developer.

10. Siloed projects

“I hear some noises but I’m not seeing it. There are pockets of activity.”

Digital Program Director

Rather than incorporating UX research, planning and design from an end-to-end, whole-of-organisation perspective, the application of UX methodologies are often project-based.

Solutions – Embedding UX into the culture of an organisation rather than viewing the discipline as a set of tasks to apply to specific projects can lead to better, holistic outcomes. Cultural change, however, can be achieved one project at a time. Small changes – like simply engaging a broader set of stakeholders – can contribute significantly to the nurturing of a collective appreciation for the value of user-centred thinking.

11. Short-term thinking

“There is a problem with human-centricity people only being employed on the project lifecycle. There is a danger that there will need to be further tweaking that does not get done and the project may not be as successful as hoped.”

Senior Strategic Advisor, Clinical Engagement and Patient Safety

The iteration of a digital product or service based on post-launch user feedback helps ensure rapid uptake of the offering. By skipping this form of user research, the organisation risks delivering a solution that fails to reach its full potential.

Solutions – While planning for user feedback may seem beyond the scope of a time-limited development roadmap, inclusion of post-launch user testing improves the likelihood that a product/service fulfils the needs of its target users. Simply taking a longer-term view of how results are measured – in the form of adoption rates over time – can radically redefine the meaning of a project’s success. According to one interviewee, attitudes to continual improvement vary according to individual product owners, and heavily depend on whether feedback opportunities are baked into the initial solution design.

Making the case for UX adoption (cont)

In this section:

Understanding the barriers to UX adoption | Overcoming opposition to UX adoption

Overcoming opposition to UX adoption

Listed below are the six major benefits of user-centred thinking as identified by the Intermedium study into Australian governments' attitudes to UX design.

Each of the responses below addresses the commonly asked question: "Why do I need UX?".

1. The consistent application of user-centred thinking builds organisation-wide efficiency

The lessons from UX research can often be recycled to other parts of an organisation. For example, templates, tools and best practice guidelines for building applications based on UX research can later be applied to other products or services from different parts of an agency or jurisdiction.

"A consistent brand or look and feel across multiple sites stops the business wasting time on nit-picky conversations. It means you get fewer conversations where a director comes and says they want to 'do it my way, just because'."

Senior Web Developer

Put simply, a standing UX methodology provides the formula for every element of an application build – from initial stakeholder engagement through to delivery.

Not only does this save time and resources by not reinventing the wheel, creating common standards or opting to reuse assets from a research and design library, provides a consistent look, feel – and customer experience – across an agency's services and products.

2. Seeking user input early helps avoid expensive, high-profile disasters

There's growing recognition in the public sector that building digital solutions without seeking user input vastly increases the chance of delivering a solution that is not fit-for-purpose.

At the very least, there is a general understanding that looping user feedback in early leads to a better product up front, one that doesn't require costly alterations and improvements post deployment.

Something as simple as minimising the use of industry terminology can have a big impact on a project's outcome. As an example, a common issue identified by interviewees is the use of legal or technical language for the design of a citizen-facing application or service. This use of internal jargon often leads to confusion and poor usability.

"Clinicians are put out by non-intuitive solutions. But human-centric design has introduced a safety net [for our development team]."

Senior Strategic Advisor, Clinical Engagement and Patient Safety

Looping user feedback in early leads to a better product that doesn't require costly alterations

3. A positive user experience plays a huge part in driving high adoption rates

It is well known within the design industry that a good user experience personally endorsed and shared with friends has a direct role in influencing others to try a product or service. This understanding was supported by the views of most interviewees.

Involving target users throughout a UX process often results in them feeling more empowered by the system they are testing, becoming advocates for the final product. Ultimately, the practice will boost uptake and reduce the risk of project failure.

“UX is a fantastic way to involve people. It engages users and they become your champions for the system.”

Senior Application Development Manager

4. User expectations are being driven by the private sector, but governments can lead the way

Citizens are accustomed to interacting with slick, customer-focused digital services created in most parts of the private sector. As a result, they expect the same seamless experience when dealing with government – and this can be achieved by including UX as part of the initial design process.

“I find it fascinating that government doesn’t realise that customers are constantly comparing us, not with another government department, but with other companies and products and services in the private sector that they’re interacting with.”

Customer Value and Pricing Manager

5. The consideration of user needs ensures agencies can fulfil their compliance obligations

By bringing the full range of users to the table as part of the design process, concerns around safety, accessibility, cultural sensitivity – and other compliance requirements – are more likely to be heard. Design decisions based on information provided by and about users can therefore be baked into the solution from the beginning – rather than being tacked on at the end.

“We’ve started to see safety being considered as part of the design, rather than [as a] post implementation [issue].”

Senior Strategic Advisor, Clinical Engagement and Patient Safety

6. Business-like goals are better supported with UX-defined platforms

Efforts to generate new business investment – and attract skilled migration – are increasingly sophisticated, requiring an equally advanced range of digital solutions to support governments’ objectives. However, it takes a clear focus on meeting community (end-user) needs to avoid creating unnecessary red tape.

A UX-driven design helps streamline operational processes thereby simplifying the way consumers and businesses deal with government departments. The result is not just a positive outcome for users of the system, it helps governments more easily facilitate economic development and achieve their broader community objectives.

“It’s crucial that we remove superfluous barriers for external businesses to invest.”

Head of Digital Services

CASE STUDY

UX central to Western Australia Department of Fire and Emergency Services project success

The importance of designing user-centric digital solutions is now embedded in Western Australia's Department of Fire and Emergency Services (DFES).


A DFES interviewee explained that the agency previously introduced a new digital solution that received backlash from end-users – both internal employees and volunteers – due to usability issues.

The DFES interviewee said that there were no UX design methodologies employed at all on the design, nor widespread consultation within the agency.

Learning from this experience, DFES now incorporates an intensive UX design approach as part of every sizeable digital project, particularly those that engage many external end-users.

The redevelopment of the agency's Volunteer Portal was one of the first projects to receive this treatment. Dubbed the Volunteer Hub, the aim of the project was to make the portal easier to use and focused around the needs of the volunteers.

The inclusion of UX methodologies has also played a key role in making DFES's digital and online products more accessible for stakeholders affected by an impairment or disability



With a network of more than 27,000 volunteers engaged by DFES around the state, it was essential for the new hub to meet the varying needs of regional and metropolitan volunteers across all emergency services.

The project team sought to engage as many volunteers as they could in the design process. The team visited volunteers throughout the state to raise awareness of the project and seek feedback. Key UX research methods utilised included heatmaps, one-on-one conversations with users, filmed usability tests, and online tools like card sorting. The project team also engaged an expert to review the information architecture flow of the new product.

The Volunteer Hub redevelopment project cost around \$950,000, according to the 2017-18 Western Australia State Budget. Of this, around 6 per cent or \$61,000 went into UX work. The DFES interviewee indicated that UX now usually comprises around 10 to 15 per cent of the total budget, depending on the size and complexity of the project.

The involvement of UX methodologies was such a positive experience for the department that it has since applied this approach to other digital projects of various sizes, including the department's Intranet, public facing website, and dashboard for career firefighters.

"Now we see the importance of UX and how it engages the user so that they feel part of the process. That is very important for us. So whenever we get involved in an ICT project we always try and highlight the importance of UX when we're doing anything that has an interface for users", said the interviewee.

The inclusion of UX methodologies has also played a key role in making DFES's digital and online products more accessible for stakeholders affected by an impairment or disability.

National UX maturity snapshot



Graduating to an organisational culture that genuinely considers user needs as part of every business decision is a long journey, and one that is far from complete for most agencies in Australia.

Independent research agency Intermedium has identified four distinct levels of maturity for UX-centric thinking. These are detailed in the table below.

Graduating to a culture that considers users' needs is a long journey

Measuring government agencies' UX maturity

The following report extract covers the role of leadership in UX adoption and its impact on organisational culture. Using five key criteria (leadership, culture, resourcing, sophistication, timing) for determining UX maturity, the report builds a picture of current UX application practices within government.

Of the 16 agencies that participated in the Intermedium study, all registered a level of UX awareness equal to or higher than 'Considered'. In their summary findings, however, Intermedium acknowledges the high likelihood of agencies (outside of this sample group) having little or no awareness of UX. Several nominated agencies declined to participate in the study, citing no internal understanding or expertise of either UX research, planning or design.

For government agencies embracing user-centred thinking, it was found the concept of UX is typically recognised by only a few key decision-makers. However, of the agencies that participated in the Intermedium study, the majority indicated a broader acceptance of the value of a user-centric model.

Figure 3. Stages of UX Maturity

Stage	Description
Unrecognised	UX is not recognised as an issue by the senior management or organisation. There is no resource dedicated to UX considerations, and feedback from users (if any) is rarely sought or used to improve products.
Considered	The need for UX is recognised and defined, but processes and standards are inconsistent and tend to be siloed to specific projects. Internal stakeholders are familiar with some UX techniques, but there is a high level of dependency on external expertise and no dedicated UX budget.
Committed	UX has an organisational focus, with the introduction of formal policies and guidelines. Management actively, though inconsistently, promotes UX design. Internal UX specialists are appointed and dedicated budgets are assigned. Both qualitative and quantitative techniques are introduced to product/service design processes.
Established	UX is embedded in organisational culture and considered end-to-end across a project. Clear policies for UX design exist and are integral to the functioning of the organisation. Project budgets explicitly cover UX requirements. Dedicated UX professionals are on staff and apply a well-rounded suite of sophisticated UX techniques.



UX maturity was found to vary across sectors. For example, because transport entities cut across the entire state – connecting people to people, people to businesses, people to freight, people to tourism, etc. – they are under greater pressure to provide services that meet taxpayers’ expectations. This incentive drops off in agencies where there is less reach, and where citizen interaction is isolated to a minor subset of the population.

Although Intermedium spoke to a number of study participants who had been appointed to a leadership role, with specific responsibility for driving user focus, the majority of those interviewed identified UX illiteracy among the leadership group as the main threat to their UX-driven agenda.

That said, there are nearly always a few UX advocates pushing for change in the organisational culture, and these change catalysts are often located in the management levels of the digital or customer care business units.

Personnel at the delivery or operational level, such as technical ICT staff, were found to be resistant to the utilisation of UX methodologies. One study participant mentioned that program delivery staff, particularly those in favour of an agile approach, resisted the inclusion of UX within projects as it was perceived to slow down established processes. This interviewee said “significantly more time” was needed to educate personnel about the value of UX.



The study also found it was common for employees to be saying the right things without changing their behaviour:

“We’ve got a large IT group who are very disconnected from the customer base. People tell us the right things, that we’re here to support our schools and the like, but it’s certainly not ingrained in the service delivery culture.”

Chief Information Officer

Employees like this are quick to fall back into old habits and the established methods of doing things:

“There’s a little bit of ‘oh, that’s interesting, and now back to the way I wanted to do it’. There’s strong habits around the way we conventionally make a site or solutions, so they get an inkling, and then revert.”

Digital Customer Experience Manager

This same sentiment was found to be common outside the ICT unit. Other business units recognise the value of UX work but can become disenfranchised when the UX research cuts into the core work they were hired to do.

Only a few study participants displayed more advanced stages of maturity in their agencies. These agencies relied on concerted efforts to drive change, including adequate resourcing and strong governance. One agency that displayed high maturity had funded a standalone business unit and a three-year program to induce change.

There is evidence that agencies reach a critical mass moment with UX – when the rate of adoption reaches a point that it becomes self-sustaining and promotes further take up. This often happens when an agency invests in internal UX capabilities and allows the UX team to operate as a distinct unit mandated to drive business-wide change.

However, only a few agencies had internal staff dedicated to ensuring user-centred thinking was a key consideration in their projects. The study found it is even rarer to have dedicated budgets for UX needs.

National UX maturity snapshot (cont)

Even within the agency reflecting advanced maturity, there were complaints that the UX research and design work dropped off after a digital solution was rolled out – with timing of UX consideration holding back UX maturity across the board. The interviewee said that improving digital solutions once they'd gone live was difficult because they “haven't yet got to the point of reorganising [themselves] along product lines”.

Most agencies still operate on a siloed model where someone builds, then someone tests, and a different person owns the product. This is in place of the more contemporary approach where one team takes end-to-end responsibility for building, testing, deploying and managing the product.

A few interviewees said that the transition away from a project-focused mentality – where iterative improvements are treated as new and distinct projects – to a product-focused mentality allowed UX to be baked into a product's lifecycle and not abandoned post-implementation. At present, the ongoing involvement of design-thinking, including iterative improvements based on user feedback, ultimately rests on the willingness of individual product owners.

There is some variation in the sophistication of UX techniques used by agencies. Agencies may rely on ad hoc surveys and interviews to capture user feedback in their preliminary user-focused experiments. However, once an agency has been exposed to external UX expertise, employees are usually receptive to the full suite of specialist UX methodologies, provided there is evidence that they add value.

Variations in the whole-of-government approach to UX thinking

While whole-of-government (WofG) policies and capabilities are designed to filter down into the broader public sector, when it comes to UX maturity this is rarely the case. This is largely because agencies are autonomous, and although some direction and guidance can be provided at a WofG level, it is difficult to mandate and enforce change.

Furthermore, agencies in some jurisdictions rely on WofG direction and guidance more heavily than others, particularly on ICT and digital matters (which is where UX still often sits).

For example, interviewees in Western Australia frequently referred to the work undertaken by the Office of the Government Chief Information Officer (now Office of Digital Government) as an exemplar of the practices they sought to embed.

The Office of Digital Government establishes cross-agency working groups, by bringing together digital leaders to review and provide recommendations on any WofG project – including the development of UX standards and principles. Office members acknowledge that agency leaders are more likely to adhere to the policies or support a project if they have personal involvement in its development.

In Queensland, there is a focus on federating rather than centralising services and “creating unified digital experiences, not single digital experiences” according to the state's CIO Andrew Mills speaking at the 2018 CeBit conference.¹¹ This gives individual agencies greater responsibility for the implementation of UX into the design of digital services, which may lead to heightened inconsistency across Queensland agencies.

This is in contrast to New South Wales where there is a centralised entity for multi-channel service delivery (shopfronts, call centres and web-based services), which may mean greater consistency in the implementation of UX into the design of digital services.

Most agencies still operate on a siloed model where someone builds, then someone tests, and a different person owns the product



National UX maturity snapshot (cont)

Measuring WofG UX maturity

Using information freely available from the public domain, independent research agency Intermedium conducted a UX maturity audit on Australia’s nine government jurisdictions. The below scoring framework has been used to gauge maturity against set criteria.

Reassuringly, none of the nine Australian governments were assessed to be below *committed* in their UX maturity score. Instead, all occupied one of the top two levels of maturity, namely: *established* and/or *committed*. **Leadership** and **cross-agency governance** were identified as the most common hurdles jurisdictions struggled with.

However some less-mature jurisdictions were also found to struggle to enact policies which sufficiently promoted UX design.

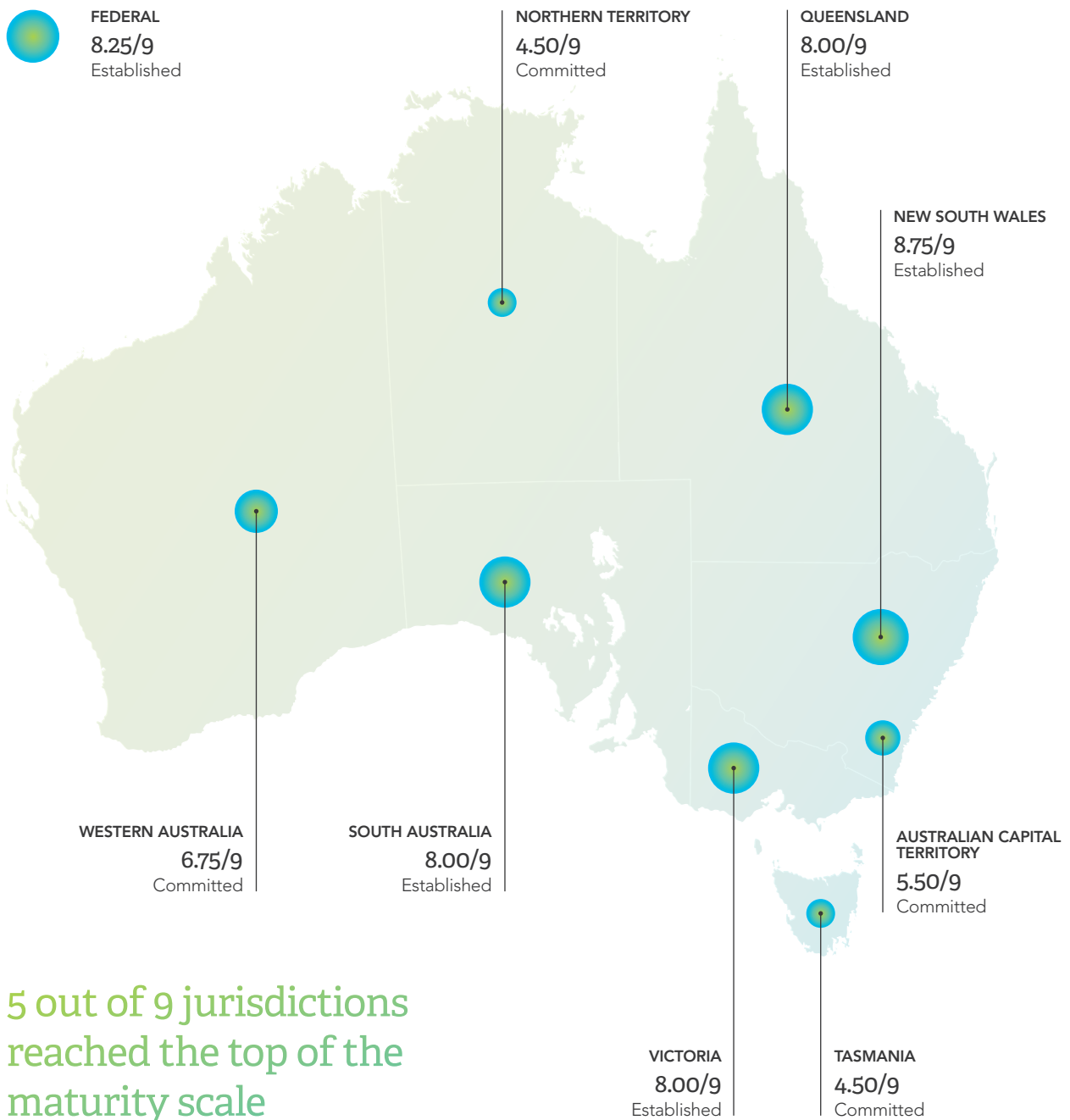
Jurisdictions’ UX maturity scores largely reflected their digital government maturity as determined by Intermedium’s Digital Government Readiness Indicator (DGRI), last published in February 2019. New South Wales, the leading jurisdiction of the DGRI, likewise scored highest in UX maturity, just ahead of the Federal government.

Figure 4. Maturity Criteria

Unrecognised	Considered	Committed	Established
0	1	2	3
Intent (strategic direction; policy)			
No evidence of UX consideration at WofG level	UX considered in ad hoc manner within various strategies, reports and policies	Formal policies or strategies commit to UX, but there is a lack of specificity and limited evidence of (steps towards) implementation	Dedicated and explicit focus on UX at WofG level, with evidence of (steps towards) implementation
Resources (WofG guidance; human resources)			
No dedicated UX staff or budget, and no guidance or training tools available at WofG level	No dedicated budget; ad hoc hiring of UX personnel, but have high external dependency for UX expertise; minimal WofG guidance available (e.g. website design standards)	Evidence of internal WofG UX teams, although may be project-siloed; budget may recognise UX needs; basic UX tools and guidance materials are available	Dedicated WofG UX teams and explicitly allocated budget for UX; variety of UX training tools, materials and guidance are readily available and their use is encouraged, if not mandated
Governance (leadership; cross-agency governance)			
No comprehension of UX by senior leaders	General awareness of UX in management, but lacks a leader with explicit UX responsibility; no evidence of cross-agency UX efforts	Dedicated WofG leader(s) takes active role in driving UX, including driving cross-agency UX collaboration	Dedicated WofG leader(s) makes UX an integral part of public sector, with clear directions for UX established across all agencies and sectors

Note: Although efforts were made to score each jurisdiction fairly and objectively, inaccuracies may be present due to the limitations of using only publicly available information for this exercise.

WofG UX maturity scores





CASE STUDY

UX drives SA's 'outside-the-box' digital driver's licence development

Beating the digital trailblazer New South Wales to the punch, the Government of South Australia rolled out their digital driver's licences across the state in late 2017.

Built with the assistance of a small Adelaide-based company Appvation, the Department of Premier and Cabinet's Whole-of-Government MySA GOV digital pass app requires citizens to identify themselves on the initial sign up, with access thereafter obtained through a code.

Identity theft on the app is prevented by refreshing the individual barcode at defined intervals, so that screenshots or other forms of replication will be automatically deemed invalid.

Once logged in, citizens can digitally render physical licences and credentials onto the app – but that is not all the app does.

The new system also simplifies the citizen experience of acquiring, maintaining and renewing a licence, according to Department of Premier and Cabinet's Business Transformation and Programs Director Wayne Hunter, speaking at Intermedium's 2016 Digital Transformation in Government conference in Adelaide.

The app also facilitates and triggers actions like payments, and prompts users with notifications when their licences are approaching expiry



The app also facilitates and triggers actions like payments, and prompts users with notifications when their licences are approaching expiry. These push notifications will replace paper-based reminder notices, which are often lost or stolen during delivery.

Citizens can choose to opt-in to the service, with physical cards and passes to remain an option for all pass holders.

Citizen experience was firmly in the minds of policymakers as they undertook the project. According to the then South Australia Office for Digital Government Director Rick Seamen, citizens will only adopt digital services if it is easy to use and their needs are accommodated. "It has to be done properly; the government stuff is uninteresting as it is, so if it's clunky then it will just be too hard."

Wayne Hunter iterates further that the key to the success of the digital licences project is approaching delivery through a citizen-centric lens – by providing solutions to problems that arise from interactions with the traditional system, like soggy boat licences.

"We recognise that we needed to approach these issues in a manner that would enable us to incorporate user-needs," said Hunter.

Building UX capabilities

While the effort to build UX capabilities may appear quite daunting, the truth is it is quite easy, by following a simple formula. In this section we cover the topic of UX maturity assessment as a means of preparing to be a UX-centric organisation; and how to build a roadmap to UX proficiency.

Analysing your agency's UX maturity

Many organisations already leverage some form of UX practice but aren't necessarily clear about how they stand – either in the broader context of Australian governments nation-wide or in comparison to other agencies.

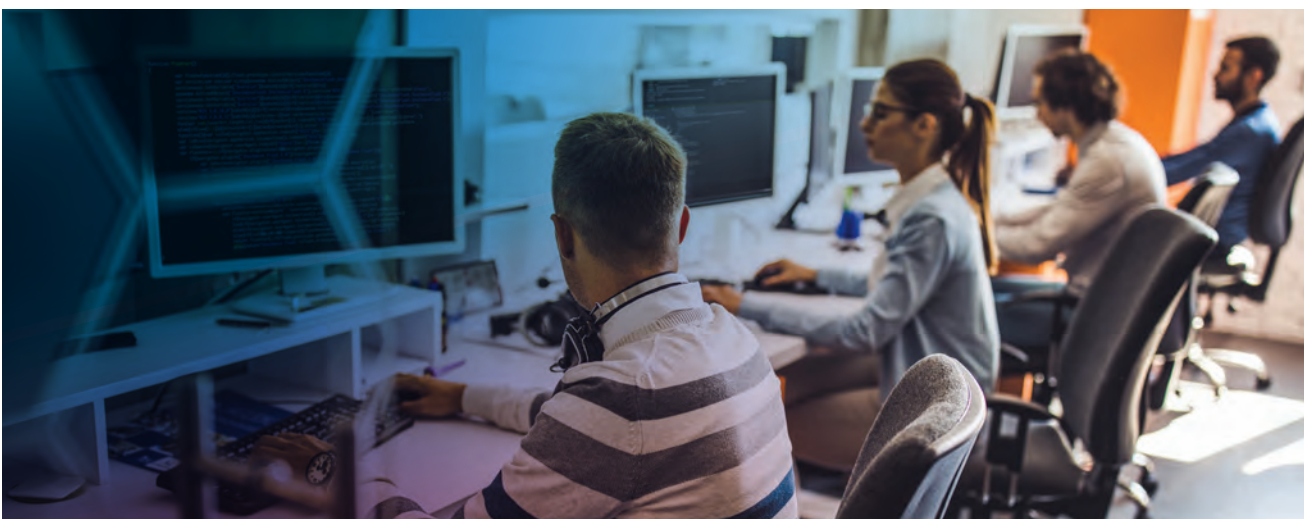
UX maturity scoring allows organisations to analyse their current situation, providing a benchmark by which they can measure future changes in their approach to resourcing, policy and process.

As a starting point to address opposition to UX adoption, maturity scoring also helps to highlight the extent to which an organisation is already being guided by user-centred thinking.

Scoring is calculated via a process of answering five questions and rating their answers – building a profile of UX maturity across five key criteria: leadership, culture, resourcing, sophistication and timing.

In accordance with UX best practice, it is recommended to include all stakeholders in the discussions raised through answering each question, and in forming agreement on the scoring of each response. In fact, the process itself can be a useful first step in the introduction of stakeholders to the topic of UX and in explaining its value to government projects.

By calculating a total score of points attributed to each answer, agencies can identify where they fit on the maturity spectrum and then plot out a path for how they want to move forward.



An aerial photograph of a city street at dusk or dawn, showing long shadows cast by pedestrians and buildings. A grid of small, semi-transparent squares is overlaid on the image, with colors transitioning from light blue in the top-left to orange in the bottom-right. The text is positioned in the upper-left quadrant of the image.

As a starting point to address opposition to UX adoption, maturity scoring also helps to highlight the extent to which an organisation is already being guided by user-centred thinking

Building UX capabilities (cont)

Exercise: UX maturity audit

Begin by establishing your current UX maturity rating. This benchmark will provide a baseline from which all future UX maturity assessments can be compared – to provide an indicative measure of growth. Ideally, for the best results, a cross-section of stakeholders should be included in the audit.

Question 1. Leadership

What level of awareness or support is there for UX among leadership at your organisation?

- A Management leverages UX across the organisation
- B Formal UX policies and strategies exist
- C Management is aware, but there's no formal UX policy
- D There is no comprehension of UX

Question 2. Culture

To what extent is UX part of your organisational culture?

- A UX is an integral and recognised part of our organisational culture
- B There is some awareness of UX, with processes in place to embed UX into our culture
- C While there is some awareness, there is no defined scope to embed UX into our culture
- D UX is not acknowledged as part of our organisational culture

Question 3. Resourcing

What kind of UX resources are available to your organisation?

- A Senior-level dedicated staff and budgets
- B Internal staff – project-based
- C External agencies, no dedicated budget
- D No dedicated staff or budget



Question 4. Sophistication

How sophisticated are the UX methodologies used by your organisation?

- A UX techniques are well-defined and consistently implemented end-to-end
- B Some projects will include a focus on end-client usability
- C Needs-based functionality is sometimes considered, with some user-based input
- D There is very little or no user feedback; when there is, it isn't always incorporated

Question 5. Timing

When in the project development cycle do you involve UX?

- A From beginning to end
- B Prior to project development
- C After most of the project has been developed
- D Not at all

Score your responses

A=3 B=2 C=1 D=0



Having identified your answers to each of the questions raised opposite, you can now calculate a UX maturity score. By comparing this total to the number of points in the maturity scorecard, you can assess where you stand and what options you have available.

Scorecard: UX maturity benchmarks

Maturity score	Maturity profile	Assessment and actions
0-3 points Unrecognised	<p>UX is not recognised as an issue to focus on by the senior management or by the organisation (as a whole).</p> <p>There are no resources dedicated to UX considerations, and feedback from users (if any) is rarely sought or used to improve products.</p>	<p>Expect no initial buy-in from various levels within your organisation. While UX may be known among pockets of teams within your organisation, the over-arching atmosphere is one of swimming against the current.</p> <p>Take a long-term view of building understanding and explaining the value of UX.</p> <p>When it comes to running projects, due to limits on internal resources and an absence of capabilities, any UX work will need to be handled externally.</p>
4-7 points Considered	<p>The need for UX is recognised and defined, but processes and standards are inconsistent and tend to be siloed into specific projects.</p> <p>Some UX techniques are being introduced to internal staff, but there is a high level of external expertise dependency and no budget is committed to UX work.</p>	<p>Flag UX research to your internal stakeholders as key to future project success, allowing time for decision makers to allocate budgets to this process.</p> <p>Expect patchy understanding of UX across your stakeholder group. Be prepared to explain the value and support internal advocates.</p> <p>Due to limitations on in-house capabilities, the majority of your UX planning and design work will need to be outsourced.</p>
8-11 points Committed	<p>UX has an organisational focus, with formal policies or guidelines being adopted. Management begins to actively promote a UX design approach, including by hiring dedicated internal UX staff and considering UX budget needs.</p> <p>Both qualitative and quantitative techniques are introduced into product design processes.</p>	<p>Key stakeholders understand the value of UX, and as such you don't need to justify the value. In fact, you probably already have some level of internal resourcing to work with external vendors to support project design and delivery.</p> <p>While your UX policies/standards may not be complete or comprehensive, they are enough to guide you (and your supporting vendors) to include UX as part of your project planning and development processes.</p> <p>Reinforce your frameworks, supporting assets and resources.</p>
12-15 points Established	<p>UX is embedded in organisational culture and considered end-to-end. There are clear policies to UX that have been made integral to the function of the organisation.</p> <p>There are dedicated high-level internal staff driving UX focus and project budgets explicitly consider UX needs.</p> <p>A well-rounded suite of sophisticated UX techniques are implemented appropriately end-to-end.</p>	<p>With strong executive advocacy of the role that UX plays in your decision-making processes, your approach to UX is structured and considered.</p> <p>Should you need to work with external vendors, you are guided by strong policies and supported by established resources.</p> <p>In fact, you may already have significant budgets allocated to a range of UX activities that are driving user-centred outcomes and meeting your organisational objectives.</p> <p>Keep up the momentum.</p>

UX in practice

Government perceptions of UX budgets

UX processes – such as research, planning and design – are being factored into budget decisions for digital solutions, with some agencies allocating 10-20 per cent of the total budget to these stages of the development process.

Often, this 10-20 per cent figure is repurposed from the amount typically spent on design as part of a traditional waterfall style project.

However, as user-focused research is increasingly defined as a set of professional services – rather than an abstract objective – the cost of adequately performing this function is expected to rise.

“Everything that we do ultimately has to have value. You get some really high value findings from usability testing but sometimes you get things where the usability consultant is trying to make their mark and provide extra recommendations that you can’t always prove are going to add value.”

Senior Web Developer

Independent research group, Intermedium, found that some agencies are reluctant to outsource these services even if the skillset is not available inhouse. To minimise costs, government departments have instead used materials and tools developed by those with larger UX budgets, such as the Digital Transformation Agency’s Digital Services Standard.

Unsurprisingly, the business case for adopting user-centric methodologies is found to be more palatable when the process is well-defined and the long-term benefits of embedding UX-literate resources are factored into the overall cost-benefit.

Some agencies allocate 10-20 per cent of total project budgets to UX

Value in conflict: time versus usability

The inherent difficulties associated with measuring usability performance was cause for concern for some interviewees. A number of agencies were hesitant to invest in UX research and design until there was evidence that performance yardsticks would be implemented and adhered to.

Where business units are project-focused rather than product-focused, support for the inclusion of a UX-specific budget allocation – across the lifespan of the project – was difficult. Under this organisational model, improvements to a product or application based on user feedback would likely be treated as a separate project and require a discrete business case, depending on the individual product owner.

The public sector budget process can frustrate UX advocates, with senior public servants that control budgets often far removed from on-the-ground agency operations. The business case for UX activities can be difficult to communicate to senior executives who do not yet recognise the benefits of UX. As such, the inclusion of UX components as part of the budgeting process relies on the support of senior figures and strong business cases.

Some agencies reported that funding UX components was not the main challenge – rather it’s the time that UX research and design chews up that is viewed as problematic. As study participants indicated, even if these costs aren’t factored into the original business case, the funds can often be attained from an agency’s operating expenditure.

For agencies that rely on traditional, launch date-focused waterfall project management styles rather than agile design approaches, the threat of a looming launch date will often cause decision-makers to reduce time-consuming UX activities, such as interviews or user testing, or even omit these stages altogether.

For some interviewees, however, the relationship between UX and agile is not necessarily complementary. One study participant suggested that the inclusion of UX methodologies in the design of digital products and services was at odds with agile methodology – often slowing down the design process by enforcing regimented, purist UX work at every iteration.

Another interviewee was sceptical of the value of UX as a long-term, ongoing service.

Although this interviewee believed that usability experts play a crucial role, they also said that they “are just a voice in the room”, and that these inputs need to be interpreted by a “savvy product manager” who can make informed decisions about how these insights and input from other sources will inform a project.

Ironically, many of the study participants recognised that it was a high-risk strategy to develop digital products and services that did not directly incorporate user-defined requirements.

Common approaches to exploring user insights

Although most of the interviewed agencies were in the initial stages of incorporating user-centred thinking into their product planning and development, nearly all had experience with at least one UX research technique.

Overall, study participants were generally receptive to all types of UX techniques, provided there was a valid case for their inclusion.

When it came to the process of choosing an appropriate methodology, the study showed that selection often came down to the size and scope of a project. For example, with bigger projects involving a large number of external end-users, agencies often employed a comprehensive suite of research techniques. However, for smaller projects, agencies would typically make do with a few brief interviews and surveys.

While study participants were reluctant to preference any specific UX research methods – they were, however, prepared to preference a ‘fit-for-purpose’ approach.

Of the research techniques most frequently used by study participants, two were favoured, namely:

- Qualitative methods such as **interviews** (both directed and non-directed); and,
- **Usability testing**

“There will always be qualitative reach out, whether it is through surveys, interviews or focus groups. Some kind of heuristic review will be undertaken.”

Director, Technology Services

More sophisticated methods such as **eye-movement tracking** have also been employed, with some agencies expressing interest in acquiring or obtaining access to the necessary technologies and infrastructure to regularly engage with these more technical methods.

Some interviewees, however, point out that surveys and interviews were among a group of design methods in use long before the field of UX matured into a fully-fledged discipline. For example, it has always been common for agencies that provide online services to survey users and use this feedback to improve the service.

In the same vein, agencies in the early stages of their journey often feel more comfortable with familiar research methods like interviews and surveys. Appreciation of more specialised or technical activities, such as useability testing, is likely to develop later as an agency’s UX maturity progresses.

Study participants were generally receptive to all types of UX techniques

Researcher's note



The emergence of life journey mapping

Life journey mapping is fast becoming a go-to technique for governments looking to design services around user needs rather than their internal structures. Jurisdictions such as New South Wales and the Federal Government are engaging citizens to understand how they experience life events, such as a death or birth in the family, in order to design services that go beyond agencies' baseline responsibilities.

NSW's digital.NSW Accelerator (DNA) Lab has been set up to achieve a range of objectives: promote cross-agency collaboration on digital service design; understand the life journeys of NSW citizens holistically; and, establish reusable infrastructure that can facilitate the growth of such systems.

“When citizens engage with government, we know they do so across a number of agencies and their path through services is rarely linear. We want to understand that journey beyond the lens of just one provider and see how the experience links together.”

Marina Chiovetti, DNA Lab, digital.nsw blog

Beyond the emerging field of life journey mapping, many of the agencies interviewed had experience utilising other long-established UX research techniques. The most commonly used approaches are summarised in Figure 5.



Figure 5. Commonly used UX research methodologies

UX method	Description
Interviews	<p>Directed interviews: typical question-and-answer format, in which the researcher asks specific questions to the users.</p> <p>Non-directed interviews: the researcher opens up a general discussion with the user(s) and will mostly listen to the user's thoughts.</p> <p>Ethnographic interviews: the researcher observes the user(s) in their own environment to understand how they accomplish certain tasks.</p>
Surveys and statistics	A quick way to collect information from a large number of users with minimal effort but lacks interaction between the researcher and the users.
Usability tests	<p>The researcher asks user(s) to use the product to complete a set of tasks.</p> <p>Moderated testing: users are brought into a usability lab and are observed performing specific tasks or tests as facilitated by a moderator. Can be in person or remote.</p> <p>Unmoderated testing: the users are given tasks and instructions via video or recordings and complete the test on their own time.</p> <p>Guerrilla testing: typically performed in community in a more casual setting; random users are asked to use the product and provide informal feedback.</p>
Card sorting	The user is provided with a set of terms and asked to categorise them. Seeks to explore how users perceive relationships and hierarchy between content.
Tree tests	<p>Similar to card sorting, tree tests seek to test whether the product has an appropriate information architecture and content hierarchy.</p> <p>Users are given a task and the top level of a site map and are asked to talk through how and where they would find the relevant information.</p>
A/B tests	<p>Variable testing seeks to inform decision-making between alternative models.</p> <p>The user is given two or more options (or each option is presented before different users) and researchers document the user's preferences or which option worked the best.</p>
User personas	User personas are a realistic representation of key audiences and are often based on real-life people. They offer a point of reference for the team to focus on when designing products.
Expert review	<p>Usability expert(s) walk through a product to spot problems with the design, accessibility, and usability of the product.</p> <p>Heuristic evaluation is an alternative, in which experts measure product adherence to common usability guidelines.</p>
Eye-movement tracking	Measures the direction and motion of the eye as the user navigates through the digital product and creates a heatmap or saccade pathways to show: where the user focused on the most; how long they focused on certain areas; and where the gaze moved to next.

CONCLUSIONS

It is without doubt that applied user-centred thinking has captured the attention of the public sector. In fact, for the converted, focusing on users during the development of digital products and services, including software applications, is considered the only way forward.

However, the traditionally complex and resource-constrained environments of government pose a challenge for the growing cohort of UX supporters and leaders trying to drive steep change in their organisations.


Accordingly, UX maturity remains relatively low across many government agencies despite coordinated efforts at the whole-of-government level.

Study participants shared their experience in incorporating UX research, planning and design in the development of digital products and services, particularly application software. In general, the agencies interviewed expressed a preparedness to support UX research, provided there was a clear case for its inclusion.

For some agencies the business case was strong enough to routinely allocate 10-20 per cent of their project budgets to UX research. By contrast, others were required to be more resourceful – redirecting funding traditionally set aside for the design component of a digital build to UX research.

There were also some variations in the sophistication of UX techniques used by agencies. However, most agencies remain open to the full suite of conventional UX methodologies if there is evidence that a technique will add value. The types of UX methodologies employed depends largely on the size and scope of the digital project in question.

Across all study participants, it was recognised that widespread adoption of UX in an agency hinges on the existence of a change agent in a senior position



Nearly all interviewees felt that there was awareness and appreciation of the principles of UX and had started to mobilise support within their organisations. However, nearly all parties also acknowledged that goodwill is rarely enough to change the culture of an entire organisation with entrenched bureaucratic processes that limit deviation from the status quo.

The study showed agencies that invested in both external and internal UX capabilities were rewarded with organisation-wide attitudinal shifts in favour of user-focused design. Of the agencies that had displayed high UX maturity, one had gone as far as to fund a standalone business unit and a three-year program to drive change throughout the entire organisation.

Across all study participants, it was recognised that widespread adoption of UX in an agency hinges on the existence of a change agent in a senior position. It was believed that as awareness of the value of UX increases, the need for these change agents to reside within the leadership team would become more apparent.

As the strongest indication of how far governments' attitudes towards the application of user experience principles have come, participants pointed to the establishment of progressive organisations such as the national Digital Transformation Agency (DTA). The DTA and other similar state-based organisations have taken the lead building a suite of blueprints and guidelines for applied user-centred thinking in government.

About this study

This research has been conducted by Intermedium, an independent research firm, with the sponsorship of Esri Australia. It involved one-on-one interviews with senior personnel from Australian government jurisdictions to gain their perspectives on the drivers, benefits, barriers and costs of incorporating UX activities into departments' and agencies' digital projects.

The interviewees reflected a wide range of customer experience and technology roles, including Chief Information Officer; Director, Technology Services; Manager, Application Development; and Manager, Digital Customer Experience, among others.

In addition to interviews, Intermedium conducted secondary research to develop a perspective on the maturity of departments and agencies in incorporating UX design methodologies into their digital projects.

The conclusions made within this report, are the product of key findings from the main survey piece supplemented with complementary research and analysis including, but not limited to, publicly available government reports and announcements, as well as Intermedium's own industry research.

Study partners

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<https://www.nngroup.com/articles/definition-user-experience/>

NSW Treasury, March 2017

"Budget Paper 5 – Intergenerational Report":

https://www.treasury.nsw.gov.au/sites/default/files/2017-01/Budget_Paper_5_-_Intergenerational_Report_2016_-_full_report.pdf

NSW Treasury, June 2018

"NSW Budget 2018-2019":

<https://www.budget.nsw.gov.au/>

1. For example, DTA Chief Digital Officer Peter Alexander told a 2017 Institute of Public Administration Australia event that government agencies were "devoted" to thinking about user centred design.
2. For example, Federal's multi-billion dollar My Health Record is suffering partially because of inadequate user-centred design, according to former DTO CEO Paul Shetler.
3. 2015 Deloitte research found the average cost of an online transaction with government to be \$0.40. A face-to-face transaction costs \$16.90 on average whereas telephone interactions were \$6.60 each.
4. Norman, Don and Nielsen, Jakob, May 2017, The Definition of User Experience
5. Digital Transformation Agency, December 2016, Transformation Agenda
6. Norman, Don and Nielsen, Jakob, May 2017, The Definition of User Experience
7. A small amount of this \$23 billion will arise from prior year budgets whereby new initiative funding was allocated into 2019-20 to cover a multi-year project
8. DTA, Digital Marketplace
9. 2018-19 New South Wales Budget, June 2018
10. Interaction Design Foundation, June 2018, A Simple Introduction to UX
11. Intermedium, July 2018, Cost of service excellence exceeds \$2 B

“Human-centered design is a philosophy, not a precise set of methods, but one that assumes that innovation should start by getting close to users and observing their activities.”

Donald A. Norman, co-founder of Nielsen Norman Group