

ANU DIGITAL MASTER PLAN

September 2021



Australian
National
University



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Foreword

Dear ANU community members,

I am pleased to introduce our new Digital Master Plan.

Many people have put a great deal of effort into shaping this work and I thank all who have contributed. Many of you have identified that collaboration and cooperation are key to our success in delivering excellence in teaching, learning, research and professional services. The production of this plan is an example of ANU cooperation at its best, and successful delivery will depend upon a continued commitment to work together.

The Plan presents the vision for our University's digital future and is a key component of the ANU 2025 Strategic Plan. We recognise that digital must evolve from an enabler to a strategic business capability supporting a vision of digital abundance, agility, inclusivity and equity. We must act now.

Our students, researchers and staff expect to interact intuitively and with minimal effort with adaptive technologies. This Plan is our 'guiding star' for the evolution of our digital services to meet these expectations.

Creating this reality will not come without its challenges. As many of you have identified, our starting base is low, providing considerable room for improvement. I do not accept the current state and support this fresh approach to building our shared digital future. Implementation will mean changes, for the better, to the way we work.

Transforming the University's digital environment will require each of us to contribute and stay connected to the process of change.

This is an ambitious plan but I'm confident it will ensure ANU is brought up to date and set us up for the future.

Professor Brian P. Schmidt AC
Vice-Chancellor and President



Introduction

Dear students, staff and members of our community,

Thank you for engaging with our University's Digital Master Plan. This Digital Master Plan (the Plan) is about meeting the immediate and future challenges we face in delivering benchmark student, research and institutional experiences. We plan to evolve our digital environment in a way that leaves no one behind; one that ensures digital equity across the University.

We grounded this plan by listening to you first. The data interrogated and synthesised to reach our recommendations comes from over 100 meetings and workshops in 2020, and prior reviews and assessments. Your clear message is that we have significant issues with our current digital environment which result in poor experiences and outcomes for students, academics, researchers, professional staff and our external stakeholders in government, business and academia. **These outcomes are no longer tenable** for the national university and represent a considerable risk to our mission.

You identified three key outcomes for this Plan:

1. **Personalisation** means that your individual experience has been co-designed with you, it is easy, intuitive, seamless, tailored and anticipates your needs.
2. **Interconnectedness** to ensure what we have works together in a seamless way to deliver you the best outcome and experience.
3. **Data powered decision-making** connects both personalisation and interconnectedness – it is the bedrock for service evolution and crafting 'intelligent' experiences.

Our ambition is a secure, seamless blended physical-digital experience. This requires a commitment to your privacy and cyber-security.

The Plan itself relies on simultaneous evolution across ANU. It touches our strategy, people, policies, processes and technology and will be delivered in three phases:

Phase 1. *Stabilise* our Digital foundation, remediate urgent gaps and plan the transformation.

Phase 2. *Transform* our Digital core and connect our fragmented services.

Phase 3. Rapidly *Evolve* our services at pace.

However, achieving this requires a laser focus on strengthening key change-related capabilities that support and assure successful future program delivery. It requires deep shifts in our ways of working, thinking and effecting change.

Our pressing challenge is to choose to frame the future we want, on our terms, now. Our historical patterns of investment led to fragmentation. We can remain fragmented and lose relevance or choose unity and evolve into world-class. We know fragmentation, it fails us daily. We are at a tipping point and this Plan is our new beginning.

It is challenging and exciting. This Plan marries ambition with pragmatism. It mostly is about you. What do you need to be your best at ANU? What can you create with a strong digital platform that supports your vision of excellence?

Rapid and human-centred evolution is our imperative. We all have an important role to play in crafting our future.

Garry Whatley

Chief Information Officer



What do we mean by 'Digital'?



Photo by ANU Image Library

'Digital' to the Australian National University (ANU) means using technologies, in ways consistent with our values, to improve services for our students, researchers, academics, professional staff and external stakeholders.

Digital is an integral part of everything we do at the University as a student, researcher or professional staff member. It is not only about technology but how we use it and how we apply it. As we live in today's world, everyone is a data producer and a data consumer.

It also means using technology and data to redesign how we work. We will use technology and data to rethink how we operate, how we deliver value and how we strengthen our culture.

The Need for Renewal

The Australian National University has a history of both national and global impact, founded on the talent of our people, our unique role, and our exceptional academic and research outcomes.

We can only continue to excel if we make efforts to keep pace with the demands of this century, the new digital culture and emerging digital possibilities. ANU stakeholder feedback has been consistent across all current and prior consultations and reviews^{1,2,3,4}:

- We are now **failing to deliver for our people**. The current state of our digital services are inconsistent with the brand quality of excellence that ANU seeks to project, and out of step with industry and higher education norms.
- Emerging **digital capabilities are testing the bounds of what was previously possible**, and global expectations of digital services have changed dramatically and continue to rise, making a reset on digital a matter of some urgency.
- The accepted mechanisms **of higher education, research, and policy impact are changing**, and our opportunities to deliver on our mission will require new ways of working from us, that looks very different from our past.
- **Risks to our business and ability to compete exist** related to reputation, efficiency and cost, and revenue.
- **Significant issues exist related to** inadequacy of systems and processes, underinvestment in digital literacy, cybersecurity, technology implementation outcomes and benefits loss.
- Our **low maturity in data governance** has resulted in poor quality, incomplete, siloed and duplicated data which is no longer sustainable.
- A period of **stabilisation and risk minimisation** will be required to firm up our digital foundation (people, process, information and technology), in parallel with preparing the stage for our digital future.

The renewal of our digital environment is now an imperative for our future viability.

“Fundamental jobs to accessing the educational experience at ANU do not work in a simple, seamless and helpful way - choosing subjects, finding lectures, organising tutorials ...” Student¹

“Remove duplicate processes so that students are not required to enter/provide the same information to multiple services or areas of the College to access services/supports”
Access and Inclusion¹

“Continually bending around a complex, disconnected digital environment to get the work done”
Education Professional Staff¹

“Like trying to type while wearing oven gloves/mitts (that someone else dictates I wear).”
Research Academic¹

“Our digital environment does not support our work in a seamless and effortless way, it often creates frustration and re-work.”
Corporate Professional Staff¹

“Our digital presence lets down our excellence standard. It leads to frustration and fatigue”
Marketing Professional Staff¹

Photo by Yi Ming Ma on Unsplash

1. 'The Art of the Possible', 2020, The Still Dynamic; 2. 'Application & Data Roadmap', 2020, FromHereOn; 3. 'The Digital Future of ANU' v1.1, 2019, KPMG; 4. 'ANU Digital Personas and UX Pulse Check Findings', v1.2, Jun 2019, KPMG



01

EXECUTIVE SUMMARY



Our Digital Future

Our digital future is a match for our national and global mission, and powers research outcomes with unprecedented scale and impact, learning outcomes and experiences that are exemplars, and a way-of-working that is founded on ease, simplicity, personalisation and access from anywhere at any time.

Our aspirations for the Digital Master Plan are:

- A **stable digital foundation** (people, process, information and technology) which is secure, future proofed and continues to support and enable future research, learning and teaching and operational digital needs.
- A **personalised experience** in which digital services are human-centred and co-designed with those who use them.
- **Connected environments** in which digital complements and extends the physical campus experience, strong digital business solution platforms deliver flexible and scalable services, and enables seamless collaboration between colleagues, students and communities.
- **Data-driven insight and decision-making** through the connection of data silos, the nurture of quality information assets that are secure, the continued protection of private information and the appropriate provision of data to empower our people and our partners to invent and create.

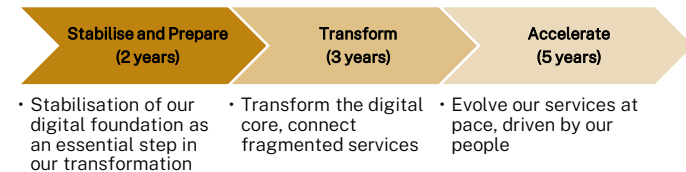
In 2030, our student experience is highly personalised. It is on-demand, flexible and responsive to each individual. It is world-class at a human scale; blending our physical and digital experiences seamlessly, providing connection and rigour. ANU is a destination university for the world's brightest and most driven researchers and students. It is a place where the challenges facing the planet and its inhabitants are solved with the future in mind as digital exponentially multiplies our human ingenuity.

Our services – educational, research, and administrative – are intuitive, simple and easy to use. They are accessible by design, seamlessly supporting our varied needs where and when we want them. Our data is no longer trapped in pools but flows unimpeded across our systems – secure, private, verified.

The Digital Master Plan is integral to the delivery of the renewed Mission and Vision as reflected in the ANU 2025 Strategic Plan.

Our Plan

The Implementation Plan will focus on three phases over 2021-2030:

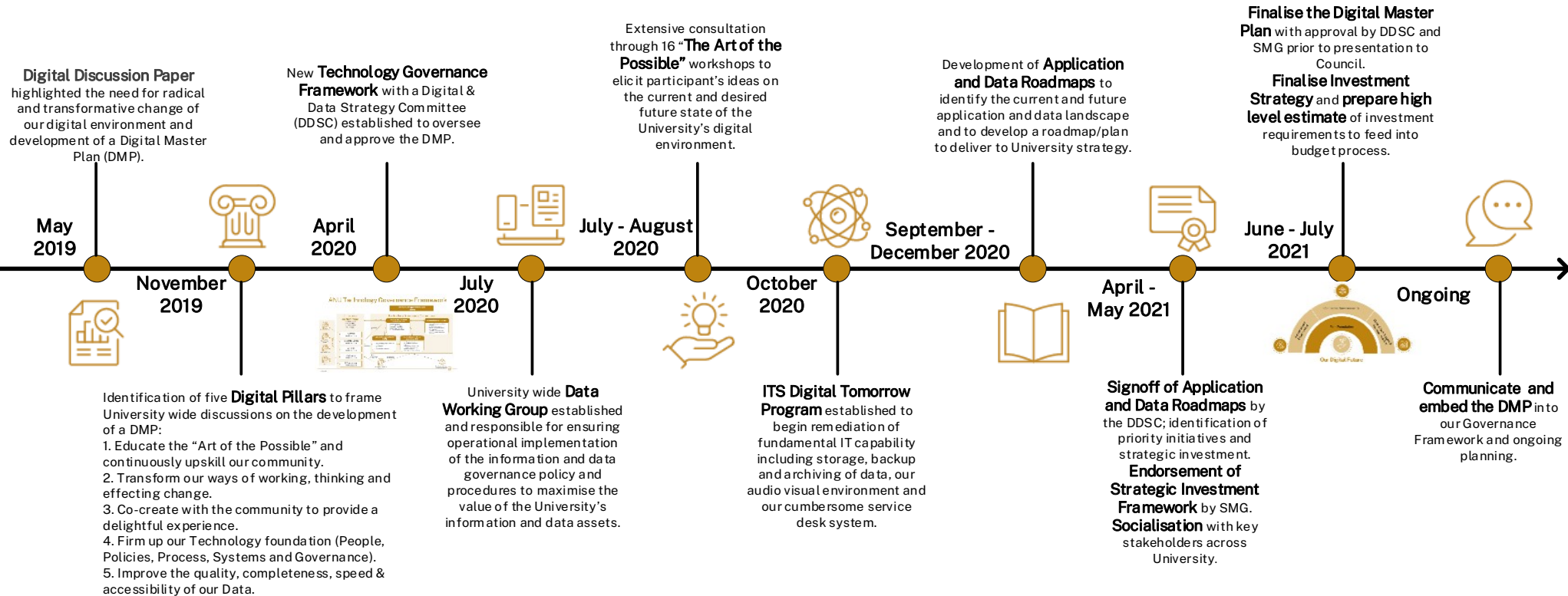


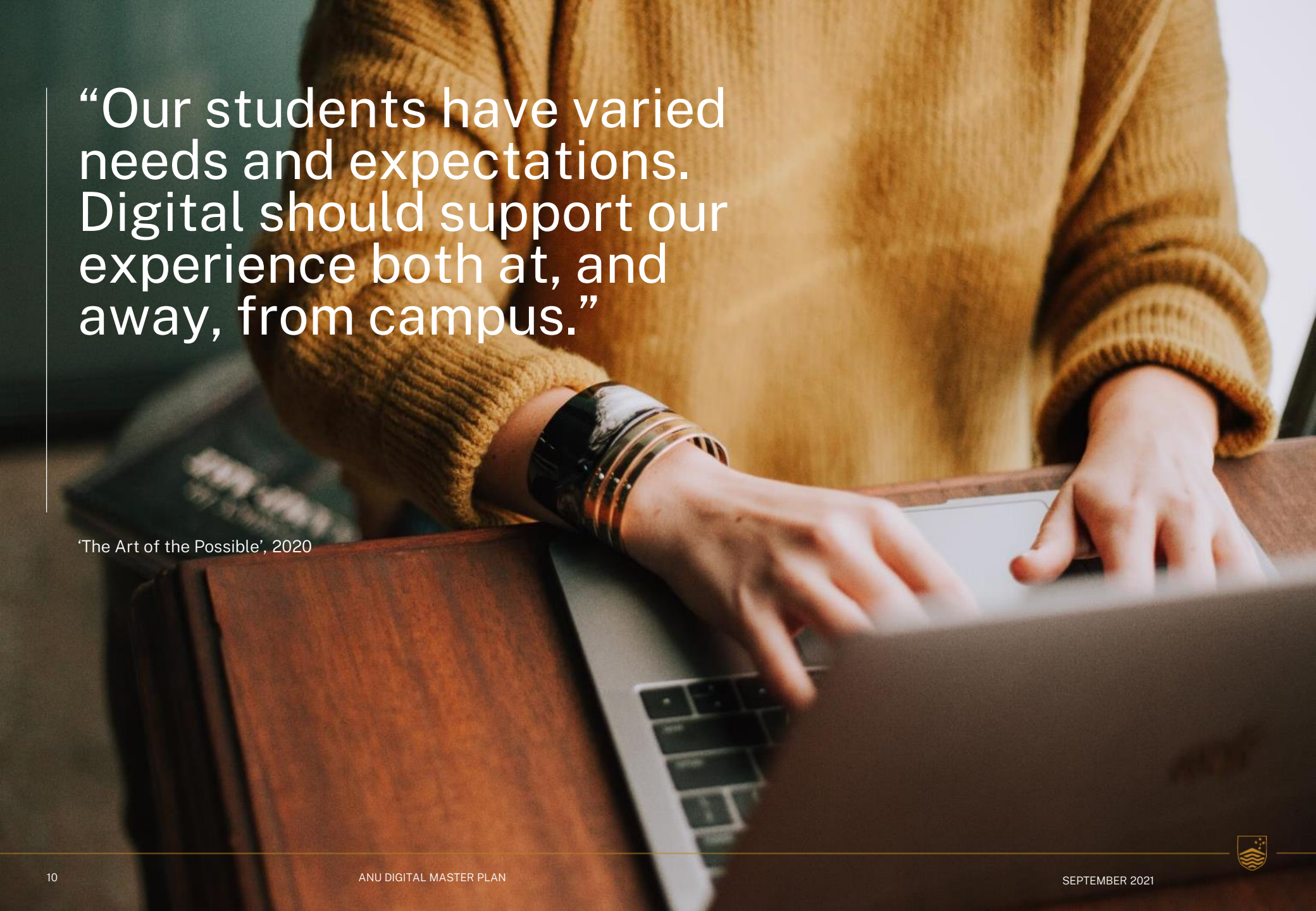
Our approach to implementation is centred on:

- **University-wide ownership** of the Digital Master Plan with cross-functional involvement in transforming the organisation.
- **Strong digital capabilities** – our people, processes, information and technology working together.
- **People-based change** – our approach will make people, culture, governance and empowerment the cornerstone.
- **Enhancing digital literacy** – as part of building a learning organisation, and strengthening our culture of collaboration and innovative change.
- **Simplified processes and policies** – enabling digital services to be delivered in the most appropriate location between central/College/School.
- **Collaboration, inclusion and emergence** – digital services evolution will be driven by empowered and self-organising teams and communities.
- **Robust cybersecurity** – systems that are secure by design and security as an enabler of user experience, business agility and scalability.
- **Engage with experts** – we will seek out knowledge and guidance from our ANU community and skilled partners in problem-solving, design and delivery through new ways of working.
- **Treating data as a strategic asset** – having a coherent data architecture, best practice data governance and processes/standards that deliver a high level of data quality.



Digital Master Plan Engagement and Ongoing Journey



A close-up photograph of a person's hands and forearms. They are wearing a mustard-colored, textured knit sweater. Their left hand is resting on a silver laptop keyboard, and their right hand is on the trackpad. They are wearing several gold-toned bangles on their left wrist. The laptop is on a dark wood desk. The background is softly blurred, showing what appears to be a bookshelf.

“Our students have varied needs and expectations. Digital should support our experience both at, and away, from campus.”

‘The Art of the Possible’, 2020



02

OUR DIGITAL FUTURE



“If we got digital right we would have...”

“The Art of the Possible” workshops¹ provided invaluable insight into the desired future state of the University’s digital environment.

From the cohort workshops, ten group personas were created highlighting the “lived experience” with the University digital environment along with the aspirations for our digital future.

More details pertaining to each persona can be found in the accompanying document: **The Art of the Possible – Group Personas**.



Photo by Ameen Fahmy on Unsplash

STUDENT

- ...a **single point of all our information** – timetables, exams, meetings etc.
- ...**different digital engagement** based on types of student (UG/coursework, HDR/research).
- ...less systems and more **consistency across our learning journey** (e.g. no differences between Colleges).
- ...a more **seamless blend of on campus and online teaching**.
- ...**easier and consistent connectivity** with teachers and peers.

ACADEMIC - RESEARCH

- ...improved the distribution and accessibility of **computational power** to all researchers.
- ...improved **data governance, management and storage** for research assets.
- ...**integrated systems** eliminating “make work” when completing routine tasks.
- ...**recognised digital skills/capability** as key and valuable (e.g. in PDR, promotion, etc.).
- ...**distributed digital responsibility**. Open up the process of acquiring technology necessary with practical governance.
- ...a **digital platform for finding people** across the University with skills and knowledge that we can approach to learn from, collaborate and share.

ACADEMIC – EDUCATION

- ...**systems that talk to each other properly** and we wouldn’t waste a lot of time trying to correct the data.
- ...**interdisciplinary collaboration** both in teaching and research.
- ...joined systems so **students can have a personalised view** of the University and their own learning.
- ...a system that **integrates online and in person teaching**
- ...a **searchable database of knowledge** – a clear way to share the best of the educational method.

EDUCATION PROFESSIONALS

- ...better **integration between ANU systems**, less workarounds.
- ...better **collaboration across Schools and Colleges** to share expertise.
- ...more **transparency about interdependency of data** between business processes.
- ...better **co-ordination and change management** on new digital initiatives.
- ...a **bank of people’s skills and knowledge** and the ability for staff to work across teams to create better digital experiences.

RESEARCH PROFESSIONALS

- ...**collaboration across Colleges** – researchers and research management staff can learn about their colleagues with complementary interests.
- ...an **integrated research management** system covering the full research lifecycle.
- ...**self serve integrated reporting**.
- ...**streamlined work and workflow** for research management.

1. ‘The Art of the Possible’, 2020, The Still Dynamic



“If we got digital right we would have...”

MARKETING, COMMUNICATIONS AND BUSINESS DEVELOPMENT

...a much more **user-friendly website** with a more accurate and powerful search function.
...engaged in more **user-centred design** of systems with our end users.
...a premium **social media management** platform that is fit for purpose.
...a University-wide approach to **relationship management**.
...a **digital-first storytelling** approach.

ACCESS AND INCLUSION (A&I)

...a plan to retrofit all current digital systems to **comply with WCAG 2.0**.
...an **A&I voice** on all digital ventures supporting best practice.
...**imbedded accessibility into the design** of all future digital initiatives.
...**removed the duplicate processes** (student facing or others) – limiting data re-entry across multiple systems.
...an **A&I capability within Colleges/Schools** to support students and staff interaction with the University's digital environment.

EXECUTIVE ASSISTANTS

...systems that are connected by workflow processes and "talk" to each other.
...**streamlined work and workflow**.
...included **users in the design** of projects from beginning to end so we get systems we can use and enjoy using.
...a much more **user-friendly website** where it is easier to find things.
...**work specific training**.

CORPORATE PROFESSIONALS

...**digital recognised as being as important as physical**.
...**collaboration between different Colleges/Schools** and areas that share or potentially could share systems.
...a dedicated **digital preservation plan** to secure the countless defunct formats of archival media for future generations of researchers.
...**improved the ANU website** to make it easier to navigate and find useful information for the diversity of users we have, especially our students.
...a University-wide **CRM for external stakeholder management**.

IT PROFESSIONALS

...increased **leverage of existing systems** to do more things.
...**customer centred digital** by design.
...more **standardisation of supported environments** and increased use of **remote support**.
...better use of **automation services** to improve and streamline processes (less manual intervention).
...more **interconnected systems** to enable data sharing (provide once, use many)



Photo by Drew Beamer on Unsplash

The insights from the Art of the Possible workshops consistently highlighted four key themes that the Digital Master Plan should address in our University's digital environment:

1. **stabilise the underlying infrastructure** (systems, storage, services),
2. **bring the people back to the forefront** (design, relationships, collaboration),
3. **connectivity is critical** (systems, data, research, community) and
4. **our data in all forms is essential** (preserved, governed, stored, understood and maintained).



Digital Aspirations and Capabilities

As we transform our digital capabilities and deliver fast, responsive and frictionless experiences to our community, we will do so according to our values and our principles – making our destination uniquely human-centred and human scale.

Our digital aspirations and capabilities, driven by the **ANU 2025 Strategy**, are:



Firm foundation (people, process, information and technology) which is secure, future proofed and continues to support and enable future research, learning and teaching and operational digital needs.

- A **revitalisation and modernisation of our core applications** for our student, learning, research and operational systems. Our systems are accessible, intuitive and easy to use.
- We have created **flexible and evolving platforms on which to build** a multitude of innovative and globally leading services that support the full academic and research lifecycles. Our platforms are built and defined by our digital capabilities – our people, processes, information and technology that enables the evolution and operation of our cutting-edge digital services.
- In our future, we have turned deficiencies into strengths with **flexible best-of-breed solutions** that have been integrated within our platforms and deliver streamlined digital services across research, learning and teaching and our operational environment.
- We have a **digitally literate community** which is able to engage with confidence, in a secure way and be innovative in the use of our digital environment to meet their research, learning and teaching and operational digital needs.



A **personalised experience** in which digital services are human-centred and co-designed with those who use them.

- We have made our digital ecosystem **accessible to our communities and empowered them to evolve it**. We are a university that crafts technology to our needs, and that understands how we can use it to develop the best of our human traits and ambitions and to further our collegiality.



Connected environments in which digital compliments and extends the physical campus experience, strong digital business solution platforms deliver flexible and scalable services, and enable seamless collaboration between colleagues, students and communities.

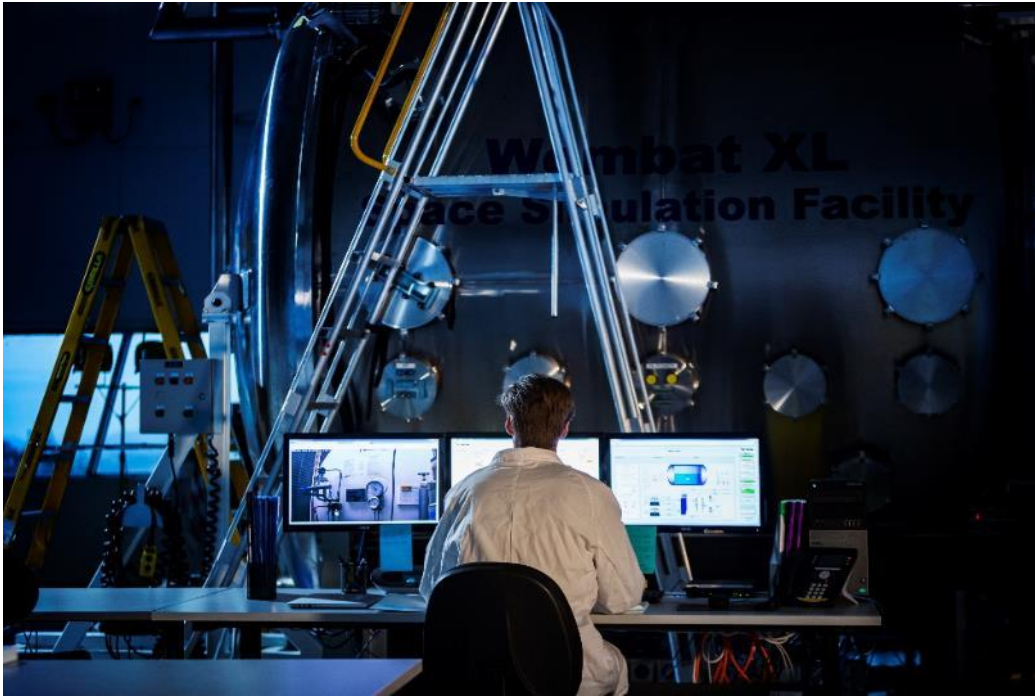
- **Integration and coherence**. We have absorbed and integrated what were the fragmented edges of our digital ecosystem. We aim to enable our core systems to exchange information seamlessly with each other, with other ANU and partner systems, and with integrated data environments that provide the insights and analysis we need to excel as a university.
- **Ongoing contribution to others**. Our digital future is one in which ANU plays a leading role in sharing digital capabilities with higher education, government and civil society globally. In our future, we are not only delivering world-class services for our own needs, but we are giving back our knowledge and experience to enhance digital capability within institutions everywhere.



Through investment in data, technology, and people we have created a **culture of data-driven insights and decision-making** that is embedded into our processes.

- We have **connected data silos**, nurtured the quality of information assets and secured them according to privacy and other needs.
- We have empowered our community and our partners to invent and create through the **provision of data**.





“We expect information technology to enhance our capacity to create outcomes. We expect our digital experiences to be easy, painless and effective.”

‘The Art of the Possible’, 2020

03

IMPLEMENTATION



Implementation Approach

The Digital Master Plan implementation approach is divided into three phases that build upon each other, and reflect significant periods on the implementation timeline:

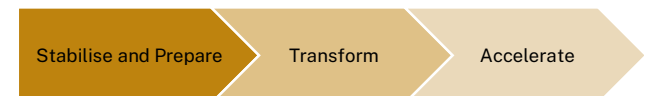
- **Stabilise and Prepare (2 years),**
- **Transform (3 years), and**
- **Accelerate (5+ years).**

The key interconnected components that guide and underpin the implementation approach are:

- **Governance.** Our new Technology Governance Framework will ensure we optimise delivery of the plan with ongoing testing of the value of initiatives against the vision of the Plan, the strategic outcomes of the University, and the financial options that are available in each time period. Our **Digital and Data Strategy Committee (DDSC)** will have strategic oversight, our **Technology Investment Committee (TIC)** will manage investment and benefits realisation, and our **Solution Design Authority (SDA)** will ensure architectural alignment.
- **Application and Data.** The **Application and Data Roadmap** is an evolving document that enables long term planning and contains proposed high level initiatives across four thematic areas: portfolios, enablers and change capabilities, data management and integration and lifecycle upgrades. The University will prioritise and agree specific outcomes and pathways for the initiatives through the demand management process defined by the ANU Technology Governance Framework. We cannot predict the future precisely, nor should we wish to try. Our services will continually evolve from our **renewed digital capabilities** - driven by our empowered and digitally literate people, our simplified processes, our **accessible** and high-quality information, and our flexible modernised technologies. Our focus is on building these capabilities to create the platform for ongoing service renewal.

- **Principles.** Our DDSC has approved the **Technology Strategic Guiding Principles** which provide clear direction for the implementation of the digital platforms and capabilities. These principles will provide greater coherence to empower a more rapid and sustainable digital transformation.
- **People and Culture.** Our people have spoken, and they have said clearly that “we are ready for change”. We will harness their collective intelligence and energy through commitment to inclusion for all and **prioritise digital literacy** to empower users. **Strong leadership** will be required at all levels, with cross-functional involvement and University-wide ownership of the Digital Master Plan. We will evolve our culture, governance approaches and decision making to be inclusive and equitable in the way in which we design and implement our digital services.
- **Processes.** We will **simplify processes and policies**, enabling digital services to be delivered in the most appropriate location between central/College/School to address issues associated with our fragmented and different organisation structures. Modernisation of digital services will enable frictionless ways of operating to arise, through enabling cross-University teams to participate transparently in service delivery. **New policies** may be needed to address policy gaps in digitally-enhanced service implementations - for example, the evolving discourse on data ownership, data governance and data sovereignty.
- **Infrastructure.** Technology and infrastructure components are in the early stages of being inventoried and assessed for lifecycle and roadmap planning. Opportunities for improvement exist in the provision of current foundational services such as wireless network access, and also in the provision of higher order infrastructure management including hybrid deployment models (cloud/on premise) and services such as capacity management, auto-provisioning, cost management and service optimisation.
- **Cybersecurity.** Our **cybersecurity** stance is evolving rapidly and will be an enabler of digital services. We will levy requirements on the design, development and operations of these digital services.

Technology Strategic Guiding Principles



Phase 1: Stabilise and Prepare (2021-2022)

Stabilise our digital foundation, remediate urgent gaps, and plan the transformation

We will commence with restraint, consideration and pragmatism. Keeping regrettable investment to a minimum, we will resolve urgent service and technology needs in a way that is aligned with our desired whole-of-University future. We will **prioritise experience, learning, research, and our engagement with students and partners**, and we will be prepared to implement 'no regrets' tactical approaches where a later more transformational shift is required in any of these areas.

Tactical solutions will be undertaken carefully to prevent introducing complexity that will slow our later transformations, and in many cases it may be preferable to defer tactical improvements in favour of leapfrogs of capability and service.

In this first phase we will:

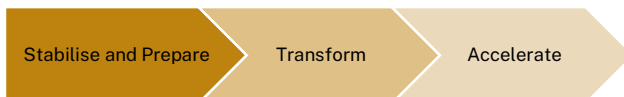
- build our collective **digital literacy** and bring all of our communities together, trialling the ways in which we will collaborate on the evolution of our digital services during Transform and Accelerate phases.
- rapidly evolve our **identity and access management** capabilities as a core digital foundational element.
- prepare and plan for the **transformation of our core information systems**, including our **web capabilities**, and the implementation of technologies that will support our digital services.
- establish **integrated Learning and Teaching Spaces** which seamlessly blend into physical spaces, enhancing the student learning environment.
- utilise our **relationship management, learning and teaching environment, enterprise resource planning (ERP)** and **cloud strategies** to define our foundational core.

Our infrastructure upgrades will include:

- use of **automation** as the thread that weaves digital initiatives together to deliver value.
- an **expanded and enhanced network** capable of securely supporting our future needs.
- **virtual desktop infrastructure** to increase cost-effectiveness, flexibility and security of our compute environments.
- **data management** and **integration upgrades** to support flexible and extensible data and analytics environments.
- other **foundational technology platforms** that will underpin our modernised application and data environments.



Photo by Dusan weverkollog on Unsplash



Phase 2: Transform (2023-2025)

Transform the digital core, connect fragmented services

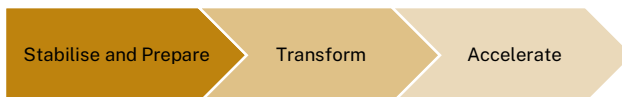
With strong foundations, we will absorb duplication from the edges of our digital environment into the pre-integrated elements of our core. We will integrate the remaining edges with our core, using open standards mechanisms built during the Stabilise and Prepare phase.

While building our digital core and absorbing the edges, we will transform the other elements of our digital platforms. We will:

- Continue to deliver to priorities from the **Application and Data Roadmap**.
- Continue to modernise end user computing including implementation of **application virtualisation**.
- Continue to invest in **digital literacy** to embed this capability to equip our community to meet the challenges of working in a digital world.
- Leverage **grid computing** technology to support complex analysis or high computing needs.
- Deliver **business process management** improvements including workflow and automation, to liberate our people from repetitive tasks.
- Expand the use of **follow-me printing** capability for use with advanced multi-function devices.
- Continue to build and **extend on the integration platform** to share information between sources of truth and begin to establish the **digital experience platform**.
- Significantly evolve our **data analytics platform and capability** to enable interaction with various sources of data across the University.
- Deliver an **enterprise search** capability and enable searchable content from multiple University-wide sources.
- Deliver **research data management and storage** to support our community to achieve the University's research goals.
- Deliver a **pre-emptive issue management solution** to remote management, maintenance and monitoring aiming to find and resolve all issues before they are noticed in the classroom or meeting space.



Photo by ANU Image Library



Phase 3: Accelerate (2026-2030)

Evolve our services at pace, driven by our people

The third phase is open to our community and our emerging needs.

Having built the flexible platforms and strong data underpinnings to support a multitude of future digital services, the evolution of our services will increasingly be driven by our communities and our innovators, guided and assisted by the service design, application, data and technology teams that support them.

During this phase we can expect an acceleration of:

- Delivery of priorities from the **Application and Data Roadmap**.
- **Advanced analytics and machine learning** applied to ANU datasets.
- Application and experience development from University communities and partners with direct access to University datasets via published interfaces.
- Environmentally sustainable technology through **Green IT**.
- **New ways of interacting with our data** and our data-enabled physical spaces, campus hubs, and promenades - through a variety of human/machine interfaces that include mixed reality, the Internet of Things, wearable technologies and ambient computing environments.
- Extend the **digital experience platform** enabling consistent, personalised, and secure access to information and applications for all constituents.
- Explore opportunities for enhancing and augmenting our physical spaces with digital services via **Campus Master Plan initiatives**.

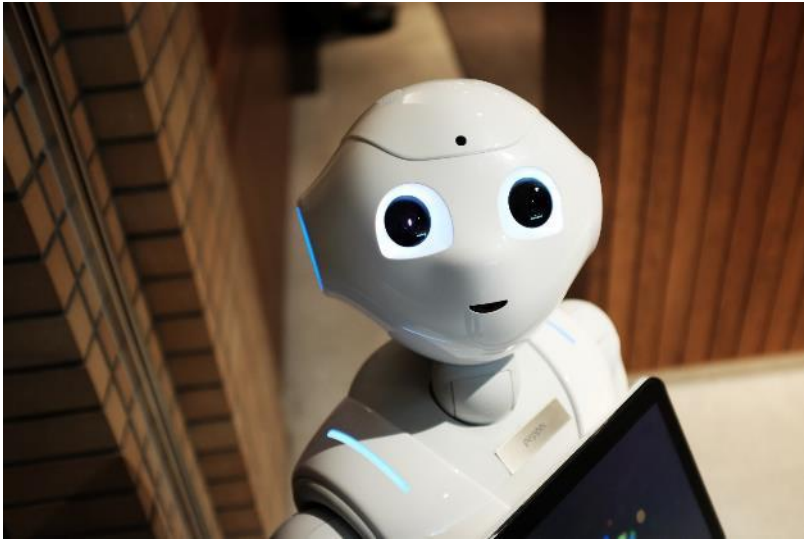
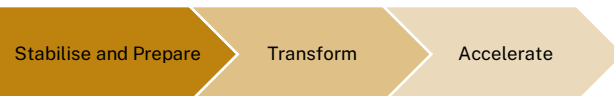


Photo by Alex Knight on Unsplash



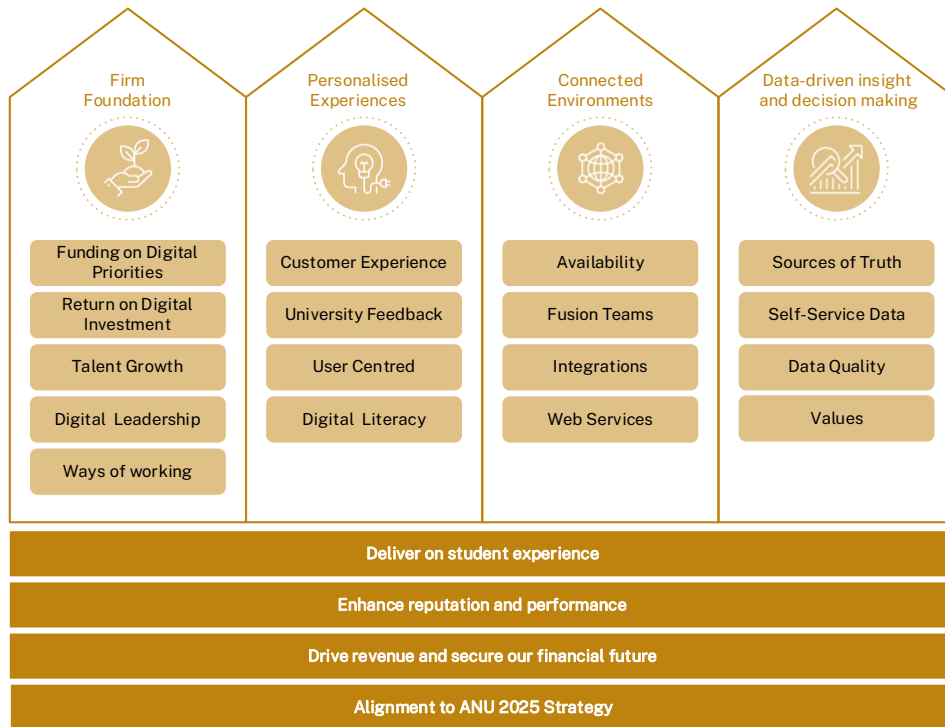
Enabling Effective Digital Capability

To transform our digital environment effectively, we will need to work differently and think differently than we do today. We will encourage a culture of performance and accountability, and:

- Make **digital literacy** the cornerstone of our digital journey by uplifting:
 - senior managements' digital understanding to enable more informed decision making.
 - students and staff understanding and knowledge of general systems (including cybersecurity) and specific ANU systems.
 - our workforce on their ability to manage data as an asset.
- Use **human-centred design** as an approach to integrate with our students, academics, researchers, professional staff and our partners in our problem-solving, design and delivery processes.
- Make experience one of the primary measurable objectives in every initiative that we deliver. We will focus on **user experience** design across the entire user journey through the use of journey mapping.
- **Adopt agile ways of working** through an iterative approach to delivery. This means adopting new practices that leverage broader collaboration, direct communication, and connection across teams and throughout the University. We will embed scrums, stand-ups, sprints and retrospectives into how we operate and think.
- **Move from project to product** to establish strong business and technical ownership with ongoing incremental delivery and continuous improvement using our agile ways of working.
- Deliver services faster by **automating and integrating** software development, IT Operations and Security Operations providing high quality continuous delivery.
- Ensure we have effective and appropriate **governance** over both our digital and data environments to deliver our future state.
- Establish a **business change and adoption practice** to support the successful delivery of digital initiative outcomes and realise the benefits to the University.
- Bring a **collective University view** to our thinking and decision making to ensure that change is delivered in partnership with the whole of the University and is not diluted by individual priorities.



Measuring DMP Success



The success of the Digital Master Plan aspirations will be measured based on 17 key indicators, which align to foundational outcomes of the ANU 2025 Strategy. These indicators will also enable the Digital and Data Strategy Committee to monitor and communicate progress of the Digital Master Plan to the University.

Firm Foundation

- **Funding on digital priorities.** Percentage of annual digital budget spent on strategic priorities.
- **Return on digital investment.** The percentage of planned outcomes of initiatives realised.
- **Talent growth.** Percentage of digital talent participating in digital communities of practice.
- **Digital leadership.** Increase in digital awareness sessions for leaders.
- **Ways of working.** Increased frequency of successful releases.

Personalised experiences

- **Customer experience.** The Net Promoter Score reflects the voice of the customer and their experience in the digital environment.
- **University feedback.** Increase in the number of responses (complimentary or constructive) about the digital environment.
- **User centred.** Percentage of initiatives co-designed.
- **Digital literacy.** Percentage of employees completing digital training.

Connected Environments

- **Availability.** Critical services availability.
- **Fusion teams.** Increased cross functional teams to deliver digital initiatives.
- **Integrations.** Increase in the number of connected systems/services.
- **Web services.** Increased number and usage of web services.

Data-driven insight and decision-making

- **Source of truth.** Increase the identified sources of truth.
- **Self-service data.** Self service to role specific data availability / usage.
- **Data quality.** Incremental improvement in the Data Working Group Data Quality dashboard.
- **Values.** Alignment with the ANU Values as stated in the ANU Strategic Plan.



“A digital environment that crosses ANU College boundaries, supports innovation, shared creativity, shared knowledge, links between technology and pedagogy and promotes digital dexterity as a critical component of the ANU digital future.”

'The Art of the Possible', 2020



APPENDIX A - DEVELOPING THE DIGITAL MASTER PLAN



Approach

In February 2020, the initial briefing for the Digital Master Plan (DMP) was provided to Council. This briefing highlighted a proposed approach to ensure collaborative discussions were undertaken across the University to develop the DMP. Since this briefing, the following key actions have taken place:

- As part of our new ANU Technology Governance Framework a **Digital and Data Strategy Committee** has been established to oversee and approve the University-wide DMP, Information and Communications Technology (ICT) strategy and associated technology roadmaps.
- A **Data Working Group** has been established with cross-University representation responsible for ensuring operational implementation of the information and data governance policy and procedures to enable the control of information and data to meet all of the University's legal, regulatory, risk and business demands.
- Extensive consultation through 16 "**The Art of the Possible**" workshops to elicit participant's ideas on the current and desired future state of the University's digital environment. These workshops involved 91 cross-functional participants during July/August 2020.
- The development of an **Application and Data Roadmap** completed in Q4 2020 involving 6 workshops, 74 interviews and 129 cross-functional contributors, which aligned and shared outcomes with "The Art of the Possible" workshops.
- During December and January, 16 additional interviews were undertaken to obtain complete coverage of domains relevant to our future digital service needs, digital capabilities and platforms. Subsequent to this final round of consultation, the DMP was drafted with the objective of defining a vision of our modernised and cohesive digital services and the steps necessary to get there.
- The DMP has also incorporated assessments of digital capability and digital platform strengths and gaps, which have informed priority areas for change initiatives.
- Use was made of a number of earlier consultations and analyses related to digital service delivery and digital capabilities. These are listed under **Consultation and Review**.

These inputs were synthesised into the DMP for consultation and review by a wide ANU audience. Subsequent to review and refinement, the plan was provided to the Digital and Data Strategy Committee and Senior Management Group for endorsement prior to presentation to ANU Council for approval.



Over 160 cross functional participants / contributors



112 workshops / interviews



33 artefacts reviewed



*"The Art of the Possible"¹ collaborative engagements sought to have our people define who they themselves feel to be – this resulted in **The Real Humans of ANU** double helix of identity.*

1. 'Art of the Possible', 2020, The Still Dynamic



Consultation and Review

The Digital Master Plan has been influenced by, and incorporated, findings and recommendations from the following consultative processes and documents.

Direct Consultations

- 'Art of the Possible', 2020, The Still Dynamic, 16 workshops of 2 to 12 participants
- 'Application & Data Roadmap', 2020, FromHereOn, 74 interviews of between 1 and 5 participants
- 'Digital Master Plan', 2021, FromHereOn, 16 interviews extending the Application and Data Roadmap, of between 1 and 5 participants



Prior Consultation Findings Incorporated

- 'The Digital Future of ANU' v1.1, 2019, KPMG
- 'ANU End User Computing', 2020, Datacom
- 'Exploring the Future of Digital Teaching and Learning at the ANU', Sept 2014, The Hornery Institute

Artefacts Reviewed

- Consultation documents listed above.
- 'ANU 2025 Strategic Plan - Consultation Document', June 2021
- 'ANU Strategic Plan' 2020-2023
- StrategyDotZero (Strategy 2025 source, predating the existence of the released document)
- 'ANU Recovery Plan', Oct 2020
- 'ANU Secure Digital Tomorrow' v3, Feb 2020
- 'ANU Acton Campus Master Plan', Jul 2019

Artefacts Reviewed (continued)

- 'ANU Scholarly Information Services - Architecture Assessment', Apr 2018
- '2020 EDUCAUSE Horizon Report, Teaching and Learning Edition', 2020, EDUCAUSE
- 'Emerging Technologies in Higher Education, Global Leading Practice Report', Jun 2019, KPMG
- 'Champions of Digital', 2019, KPMG
- 'ANU Digital Personas and UX Pulse Check Findings', v1.2, Jun 2019, KPMG
- 'Admissions Conjoint Qual Findings (Admissions Research – preliminary findings)', Nov 2020
- Student Selection Interim Qual', Nov 2020
- ANU Story - Quantitative Survey Findings, Sept 2019, Pollinate
- 'Universities in Australia, Attitudes and Challenges', Report No. 29: October 2019, ANU Centre for Social Research and Methods
- 2021 MSRD Draft Plan
- 'Research Infrastructure Strategy', June 2019
- 'Research Business Plan Performance Summary Report', Sept 2020
- 'Vision for Excellence in Teaching and Learning at ANU', Aug 2018
- 'ANU Service Performance Framework', 2020, ANU
- 'Technology Strategic Guiding Principles', 2020, ANU
- 'Enterprise Architecture Principles', 2020, ANU
- 'Academic Board Data Working Group (draft principles)', 2020, ANU
- FAIR Research Data Principles, <https://arcd.edu.au/resources/working-with-data/fair-data/>, accessed Dec 2020
- CARE Principles for Indigenous Data Governance, <https://www.gida-global.org/care>, accessed Dec 2020
- FSE prospects - persona & Beyond Stage 3 Current State journey map (KPMG)
- ANU Digital Personas (KPMG)
- Neo Report – Student Behaviour Mapping
- ANU End User Computing ThinkSmash workshop findings, 2020, Datacom
- 'Future Student Experience CRM Program, Beyond Stage 3 Options Paper', Sept 2019, KPMG
- 'ANU User eXperience (digital signage)', 2020, PAM



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