



THE UNIVERSITY  
*of* ADELAIDE

Technology Strategy

# DIGITAL FUTURE

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# FOREWORD

**A Technology Strategy for today,  
tomorrow and the future...**

**“Knowledge and the flow of information are key to what a university does – and while wisdom and ideas are powered by people, the processes, technology and information need to be in place to support our vital work.”**

The first century of the third millennium has brought unprecedented levels of change. With each passing day new horizons of knowledge emerge, combining with the relentless evolutions and revolutions of technology, bringing changes and opportunities to the way we work. Distributed business models for learning, teaching and research are accelerating the need for collaboration both internally and with the increasingly inter-connected global community, while the expectation for operational excellence in our services drives the focus on continuous improvement.

Universities, as the historical home of knowledge, research and learning, understand that as well as being custodians of wisdom and academic heritage, we are also the engine room that will power the leaders, pioneers and teachers of tomorrow. We know that our education and research mission grows ever more critical in a world of accelerated knowledge creation and the move to an information-based economy.

The University of Adelaide is well placed to embrace both the wisdom of the past and the opportunities of the future. The University's strategic plan, *Future Making*, sets an ambitious course for the University's growth and development. It calls out technology, alongside

sustainability and society, as essential areas of expertise that we must harness to achieve our vision and mission. Technology is critical in connecting our University to the global world of ideas. It supports our University as a magnet for talent: a destination of choice for those seeking to work or study in an environment where they are supported, productive, focused and energised.

Technology and information are fundamental to what our University does each day in fostering learning and increasing our knowledge about the world. The digital domain and its new technologies will help us to deliver the twenty-first century education that is both expected and needed for our growing community of learners. Information, technology and digital services are key components of the overall picture, providing the people, processes, technology and data that, when united and aligned with *Future Making*, will enable us to create an engaging digital experience for our University community and support our strategic plan.

*Future Making* recognises the physical connectedness our University provides to the beating heart of our state's capital, the emerging technology precincts in health and innovation, and the agricultural centres of excellence of Waite and Roseworthy. More than just physically, though, our University's digital ecosystem must provide a virtual home for a thriving, diverse and extended community of students, researchers, staff and other stakeholders: for learners, thinkers and ideas.

*Digital Future*, our technology strategy, is our plan to ensure that our University has the technology solutions it needs for the journey ahead: to 2025 and beyond. This means integrated and

connected initiatives and solutions that are innovative, fit for purpose, robust, sustainable and scalable to meet our plans for growth.

To support our University's five pillars to excellence, and in line with our Industry Engagement Priorities, we have identified eight key technology enablers. These cover the breadth of contemporary technology, including digital experience and enablement, the 'smart campus', learning and teaching, research technology, relationship management and community engagement, data, analytics and insight, and core technology foundations such as cyber security and the core IT infrastructure.

Our strategy not only captures the current needs of our University community, but also positions us to meet the challenges, opportunities and growth to come. An exciting future is ahead, in which complex intellectual ecosystems thrive across our campuses, our state and beyond: a world of knowledge and ideas, connectedness and collaboration – supported and enhanced by information and technology.

Through our eight enablers we seek to provide technology solutions that will support our University community to deliver *Future Making* – solutions for our students past and present, academics, researchers, staff, industry partners, and the broader community. We look forward to taking this journey together, working as a unified and aligned university community, embracing the future and drawing on our history, as we shape the University of Adelaide as the 21st century institution that our state and heritage deserve.



**Bev Wright**  
*Chief Information Officer  
The University of Adelaide*

# OUR TECHNOLOGY VISION:

## Creating the Digital Ecosystem for our Great 21st Century University

Imagine a university where...

Information and services flow through our online and physical spaces, intuitively connected and supported by seamless data exchanges.

The experience is personalised, reflecting the preferences of our students, researchers, academics, staff, alumni and industry partners. Digital solutions blend with physical touchpoints, creating a thriving and innovative space in our campuses, institutes and teaching hospitals, in the Adelaide CBD, at Waite and Roseworthy, and across South Australia as well as nationally, and around the world.

From the first moment of engagement with our University and throughout their lives, people are impressed by the ease and richness of their digital experience.

**"We approach our 150th year proud of our history, yet mindful that our mission must now be fashioned by response to emerging 21st century social, economic and technological challenges."**

Professor Peter Rathjen  
Vice-Chancellor and President  
The University of Adelaide





**“KNOWLEDGE, AND THE APPLICATION OF KNOWLEDGE, WILL BE IMPACTED BY TECHNOLOGICAL CHANGE AND SOCIAL CONTEXT.”**

Future Making

# FUTURE MAKING

The 21st century university for Adelaide

**For over 140 years the University of Adelaide has been central to the creation and dissemination of knowledge.**

*Future Making* recognises the changes confronting our society, including the disruption of existing industries and employment by technology. It also looks to what is needed to forge forward as a 21st century university, and identifies five pillars to excellence which define the strategic plan and will shape our trajectory:

- Connected to the global world of ideas
- A magnet for talent
- Research that shapes the future
- A 21st century education for a growing community of learners
- The beating heart of Adelaide

Woven together, the pillars comprise a rich tapestry that aligns global connectivity, research, scholarship and human potential with the social, intellectual and economic needs of young people, South Australia and Australia.

We envisage a future where we build on our University's strengths, and harness the opportunities presented by new and emerging technologies to be a true future maker: a catalyst of knowledge creation and innovation, an engine of social advancement, and an active participant in the local, national and global economy.

# TECHNOLOGY TO UNDERPIN FUTURE MAKING

EIGHT TECHNOLOGY ENABLERS SUPPORT FUTURE MAKING AND THE FIVE PILLARS TO EXCELLENCE

## FUTURE MAKING: THE FIVE PILLARS



CONNECTED  
TO THE GLOBAL  
WORLD OF IDEAS



A MAGNET  
FOR TALENT



RESEARCH  
THAT SHAPES  
THE FUTURE



A 21ST CENTURY  
EDUCATION FOR A  
GROWING COMMUNITY  
OF LEARNERS



THE BEATING  
HEART OF  
ADELAIDE

TECHNOLOGY ENABLERS	DIGITAL EXPERIENCE					
	LEARNING, TEACHING AND ASSESSMENT					
	RESEARCH TECHNOLOGY					
	DATA, ANALYTICS AND INSIGHT					
	RELATIONSHIP MANAGEMENT AND COMMUNITY ENGAGEMENT					
	SMART CAMPUS					
	DIGITALLY-ENABLED WORKFORCE					
	TECHNOLOGY FOUNDATIONS					

● Primary/Direct Dependency    ● Secondary/Indirect Dependency





# OUR EIGHT TECHNOLOGY

## To support and enable Future Making

### Digital Experience

- Seamless digital interaction between all members of our extended University community, including current and future students, professional and academic staff, researchers, industry partners, alumni, titleholders and donors
- Easy access to intuitive, personalised technology through a consistent and engaging experience platform
- A technology-enhanced experience that smoothly encapsulates the full student lifecycle, from entering our University, studying, leaving and becoming an alumni, and returning as a lifelong learner, as well as the associated activities and experiences of academic and professional staff, external partners and the community

### Learning, Teaching & Assessment

- On-demand access to innovative digital course content and materials with high-quality online alternatives to the campus-based experience
- Preparing our students for the workplaces of tomorrow through technology-supported, collaborative and inquiry-based approaches
- Digitally enhanced on and off-campus learning environments, with virtual classrooms and offerings supporting our culturally diverse student body to be located anywhere globally

*Hub Central, North Terrace campus*

# ENABLERS

- Leveraging technology to support offering our students and academics greater flexibility and personal choice through curriculum design and delivery, digital and micro-credentials, authentic and meaningful assessments, and flexible timetabling and academic calendars

## Research Technology

- Technologies and services which support recruiting, supporting and retaining top-talent researchers in key academic domains
- Technologies and services that support the management and delivery of world-class research, including enhancing the researcher experience and research collaboration, as well as administration optimisation
- High performance and specialised research computing, research data management and secure research facilities
- Technologies and tools to support and enhance research business development, industry engagement in line with our Industry Engagement Priorities, and the acquisition of research funding

## Data, Analytics & Insight

- Providing reliable, accurate, timely and easily accessible data and insights to better inform evidence-based decision making across our University, driving early intervention and responsiveness in areas such as student mental health and wellbeing, as part of the pastoral support we provide

- Data governance, analytics and insights platforms and capabilities to enable a ‘single view’ of our stakeholders, enabling tailored digital marketing capabilities and decision making
- Enabling our learning, teaching and research activities through curriculum and learning analytics, retention interventions, research reporting, and research delivery performance insights

## Relationship Management & Community Engagement

- Enhancing our ability to effectively manage our relationships and engage with our community – locally, nationally and globally
- Providing a single view of student information across their lifecycle at and beyond the University, improving our understanding of different cohorts across all their educational stages, and when they become alumni
- New technology capabilities to support campaign management, business development, and opportunity identification, and targeted marketing to attract and recruit talent for our University

## Smart Campus

- Physical spaces where people and technology-enabled infrastructure interact to create more immersive and fulfilling experiences for our University community, acknowledging our connection to the Kaurua people as custodians of the land we stand on

- Wider public use of our buildings, campus spaces and online environments for learning, engaging and connecting with each other, and the wider national and global community
- Our campuses are showcases for the ‘smart city’ community, addressing sustainability and social considerations and expectations, and leveraging innovative technology to optimise campus management

## Digitally-Enabled Workforce

- Technologies that enable us to actively engage and manage our talent, making it easier for staff to work, collaborate and connect via streamlined processes, linked systems and data
- Improving staff experience by enabling a flexible and mobile workforce, as well as enhanced and easier communications and collaboration, freeing up more time for higher-value tasks
- Modernising our University governance, risk and compliance systems

## Technology Foundations

- The core technologies and platforms that provide stable, secure and flexible foundations onto which we can build innovative solutions – such as the digital experience and relationship management platforms – to deliver world-class and engaging technologies and experiences for our students, researchers, academics, staff and external partners





**“TECHNOLOGY IS JUST EASY,  
AND GENUINELY HELPS ME  
TO ACHIEVE OUTCOMES.”**

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**“MY UNIVERSITY KNOWS WHO  
I AM, ANTICIPATES MY NEEDS,  
AND THROUGH TECHNOLOGY  
SUPPORTS ME IN WHAT I  
WANT TO ACHIEVE.”**

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**“I CAN SWITCH BETWEEN  
BEING PHYSICALLY ON  
CAMPUS AND BEING ONLINE  
ON OUR VIRTUAL CAMPUS,  
EVEN IN THE MIDDLE OF AN  
ACTIVITY. IT IS SEAMLESS  
AND I DON'T EVEN NEED  
TO THINK ABOUT IT.”**

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# DIGITAL EXPERIENCE

## Seamless interaction and engagement for our University community through all digital touchpoints

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The delivery of contemporary technologies and personalised services, including a digital experience platform, to enrich and enhance the University experience across our extended University community

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### Point of view

Digital experience is everything that people observe and feel when they interact with machines, processes and communications through a technology touchpoint. A good digital experience is when technology does not get in the way, but unobtrusively and seamlessly supports processes and enables people to achieve their goals.

Contemporary thinking in higher education is that technology should be invisible and easy to use – seamlessly connecting people across their University community and industry partners.

Leading universities are leveraging technology to support and automate day-to-day activities, making what people do easier and simpler, freeing them up for higher-value tasks.

### What does the future look like?

Our University community is provided with a seamless and unified digital experience which pulls together academic, research, professional, personal and social interactions into a coherent and inter-connected digital ecosystem, dynamically created and personalised for the individual, whereby their experience when online is aligned with and connected to their physical experience when on campus.

Their digital experience further strengthens our students' sense of connection to their academic cohort and community.

Simple to use technology continues to bring additional efficiency and effectiveness to day-to-day activities for university staff and academics.

Collaboration between internal parties and with external stakeholders is the norm, with technology playing a silent supporting role as relationships drive national and international partnerships and connections to achieve academic and research outcomes.

In the future, the digital experience that we provide has been exceptional for so long that it is seen as an intrinsic part of the University of Adelaide. This is a key attractor for prospective students, researchers and external partners, as well as alumni.

*Left: Hub Central, North Terrace campus. Our hubs provide technology enhanced facilities and spaces for students to meet, study, make social connections and exchange ideas.*

# LEARNING, TEACHING & ASSESSMENT

## New technologies to support the provision of a 21st century education

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The exploration and delivery of new technologies to support a modern approach to learning, teaching and assessment

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### Point of view

Student needs, preferences and expectations are rapidly evolving, creating shifts in the way learning, teaching and assessment are conceptualised.

Universities across the world are embracing the changing environment in higher education and adopting an experience-based approach to attracting and retaining students, and reimagining what academics and staff need and expect in order to improve learning outcomes.

### What does the future look like?

Active learning is embedded across our programs and courses, with a particular emphasis on technology-supported, collaborative and inquiry-based approaches, linking group learning, and learning through inquiry and research, with real-world problem solving and the development of our students' employability skills, including their digital capabilities.

On-demand access to innovative digital course content and materials enables greater student flexibility, and the opportunity to develop consistent learning experiences across channels, with high-quality online alternatives to the campus-based experience.

Flexible learning is the norm, and students can use digital tools to review and manage their progression at their own desired pace and level.

Courses can be fully or partially online, and conducted across physical and virtual venues, offering greater flexibility for students and staff, supporting our culturally diverse student body to be located anywhere globally, increasing student engagement and meeting personal preferences.

Technology supports flexible academic calendars and timetabling, and also facilitates easy personalisation of the 'student journey', providing individualised paths that students can design within the University curriculum.

A balance of technology-assisted formative and summative assessments is used in conjunction with adaptive learning to better meet individual students' needs and strengths, while insights from learning analytics support educational enhancement and enable personalised support for students at risk of dropping out or failing. Our focus is on helping our students to be the best they can be.

Our globally-gearred University culture is supported by on-campus and off-campus learning environments that are digitally enhanced. Immersive and interactive learning is provided through technology-enabled assessments and materials such as high-resolution video streams, augmented and virtual reality content, and interactive simulation activities.

*Right: Sia Furler Institute for Contemporary Music and Media. Students have unique, hands-on opportunities to create, study and practice in the digital age.*



**“MY UNIVERSITY OFFERS ME  
LEARNING IN APPLIED AND  
EXPERIENTIAL WAYS –  
ANYTIME, ANYWHERE.”**

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**“I AM EMPOWERED WITH REAL-TIME  
INSIGHTS ABOUT MY STUDENTS,  
IN-CLASS AND MARKET TRENDS  
TO ACHIEVE WORLD-CLASS  
EDUCATIONAL OUTCOMES.”**

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**“OUR FOCUS ON OPTIMISING  
TECHNOLOGY’S POTENTIAL TO  
ENHANCE STUDENT LEARNING  
BUILDS ON AND COMPLEMENTS  
THE RICH INTERACTIONS BETWEEN  
STUDENT PEERS, AND BETWEEN  
STUDENTS AND ACADEMIC AND  
LEARNING SUPPORT STAFF.”**

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**"I HAVE ACCESS TO HIGH PERFORMANCE TECHNOLOGY SOLUTIONS TO HELP ME DRIVE FAST AND ACCURATE RESEARCH OUTCOMES. I AM ABLE TO IDENTIFY RESEARCH OPPORTUNITIES AND COLLABORATE WITH INDUSTRY AND PEER UNIVERSITIES."**

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**"I AM GIVEN UNCONSTRAINED DATA THAT I CAN HAVE CONFIDENCE IN, AND I CAN PROCESS INSIGHTS TO RAPIDLY SHAPE MY RESEARCH."**

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**"MY RESEARCH AND PROFESSIONAL DEVELOPMENT EVOLVE IN PARALLEL, ENABLING ME TO MEET GLOBAL INDUSTRY NEEDS AS WELL AS THE EXPECTATIONS OF SOCIETY."**

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# RESEARCH TECHNOLOGY

## Supporting our world-class research to continue to shape the future

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The delivery of new and enhanced technologies to support, enable and enhance the complete research lifecycle

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*Left: The University of Adelaide Observatory is used for both teaching and research, with computer-based resources complementing observational astronomy.*

### Point of view

We are in a time of unprecedented change. The groundswell for appropriate focus on environmental sustainability is combining with increased pressures for supplies of food and water. Societal shifts and changes to traditional industries have brought energy and resources needs back into focus, and geo-political instability is adding to the uncertainty. Competition for funding globally, nationally and at an institutional level is combining with increased demand for tangible outcomes delivering economic and social benefit. Evolutions and revolutions in science and technology are bringing challenges and opportunities to both society and industry.

These relentless changes affect the expectations placed on research outcomes, the needs of researchers, the nature of partnerships with industry, the availability and specificity of funding, and the appropriate role for and use of technology, as well as how research data is collaborated on, created, shared, published and used to deliver tangible outcomes.

In the face of this volume of change, modern research universities are leveraging technology to minimise risks, whilst not stifling innovation. Rigorous and proactive management of ethical risks and challenges maintains professional objectivity and safeguards research outcomes and the reputation of the university and researchers.

How well our research community responds to the changing and emerging opportunities, expectations and challenges will be increasingly important in a world defined by accelerated knowledge creation and transition to an information-based economy.

### What does the future look like?

Technology is seamlessly embedded in the fabric of our University. It supports and enables the recruitment and retention of top-talent researchers, as well as the full research lifecycle from business development and lead management, planning, identifying opportunities, the bid process and funding, through to conducting research and sharing research outcomes, and on to publishing and potential commercialisation.

Access to cutting-edge research facilities, technologies and services, such as high performance computing, artificial intelligence, and working with big data, continue to allow us to tackle global challenges such as cancer, climate and health.

Shared-use technology platforms aid creative and organic engagement and collaboration between researchers, their peers, other universities, industry and the public, both domestically and internationally.

Research data management ensures that we control and leverage the data that we access, develop and publish. Technology supports proactive research management and administration so we continue to uphold the highest standards of professional conduct, integrity and regulatory compliance in research.

Our borderless research technology environment, aligned with our Industry Engagement Priorities, provides appropriate physical and data security to meet the stringent confidentiality and sensitivity requirements demanded by industry partners, while also being open enough to enable our researchers to collaborate, share information and compete at the global level, where the ability to rapidly elicit insights and share knowledge is critical.

Our colleges of expertise weave the nuances and unique needs of sustainability and society and the continually emerging opportunities from technology into our research and educational activities. They will enable new research areas, how we choose to undertake key activities, and the real-world applications of our research outcomes to improve our society and planet.

Our reputation globally, nationally and within South Australia, as leaders in research and technology, continues to make us attractive as a research partner of choice, and a preferred destination for prospective researchers, students and staff.

# DATA, ANALYTICS & INSIGHT

## The right information and insights, at the right time, for evidence-based decisions

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Modernisation of data and analytics platforms to provide access to secure and reliable data and insights, enhancing our ability to make well informed evidence-based decisions

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### Point of view

As we progress further into the 21st century, data and insights are the new currency of the information economy.

There is an intrinsic inter-dependency between data, analytics and insight. Up-to-date, coherent, accessible and accurate data is needed in order to generate reliable and meaningful insights, through the application of analytics.

Leading universities understand that making evidence-driven decisions drives their ability to achieve their goals. With the right information easily to hand, they are better empowered to attract and retain students, researchers and staff, as well as form meaningful and productive relationships with industry partners and the wider community.

The ability to detect changes in key indicators and glean appropriate insights is now an essential requirement for institutions. This allows them to react to changing priorities and expectations among our internal and external stakeholders, such as leveraging insights to enhance our student support mechanisms.

Information privacy is also increasingly critical for universities, who need to balance timely and accurate information access and flow with ensuring that access is in line with rapidly evolving data privacy and freedom of information rules which apply to everything from student personal information to industry specific research data, as well as to the large volumes of data captured through the Internet of Things.

### What does the future look like?

Reflecting our academic mission for research and learning, our institutional mindset is a robust, evidence-based approach to strategic educational and research enhancement and decision-making.

Our decision-makers are afforded data, systems and expertise – when they need it, wherever they are – to help them meaningfully weigh alternatives.

The needs of the Waite campus are quite different to those at Roseworthy and North Terrace, but there are also commonalities. Insights on the three campuses allow us to optimise economies of scale where applicable and complement this with services which are not delivered at all three campuses.

Duplicate records and out-of-date and inaccurate information have been removed, leaving unified information that we have confidence in using to drive our interactions and decisions.

Information is delivered to and assessed in real time by the recipients across the University community, who can then include it in their day-to-day decision-making, driving early intervention and responsiveness in areas such as student mental health and wellbeing as part of the pastoral support we provide.

Having easy access to up-to-date information and insights becomes the norm and is a fundamental component of all tasks and activities.

Our analytics capability draws upon the large amounts of disparate data that we and our partners collect, bringing order, structure and coherency. It provides meaningful insights that can be acted upon.

Predictive analytics complements historical analysis to provide forward-looking projections, using learnings and trends from the past, supporting early intervention and risk mitigation.



**“RELIABLE, ACCURATE, TIMELY  
AND EASILY-ACCESSIBLE DATA IS A  
CRITICAL INSTITUTIONAL ASSET.”**

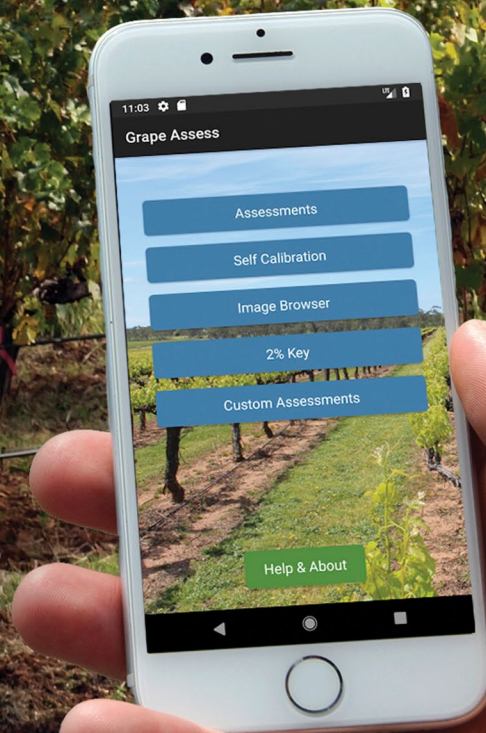
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**“WE NEED EASY ACCESS TO  
INFORMATION AND INSIGHTS.”**

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**“WHEREVER I AM, I HAVE  
CONFIDENCE THAT I CAN EASILY  
GET ACCURATE, UP-TO-DATE  
INFORMATION TO HELP ME MAKE  
SOUND DECISIONS.”**

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*School of Agriculture, Food & Wine,  
Waite campus. Grape Assess is a digital  
tool developed by University researchers  
and collaborators, with industry  
support, that analyses grape quality.*



**“OUR RICH INFORMATION ABOUT STUDENTS, RESEARCHERS AND OTHER STAKEHOLDERS ENABLES PERSONALISATION OF COMMUNICATIONS AND SERVICES MATCHED TO THEIR INDIVIDUAL NEEDS AND PREFERENCES.”**

**“AS AN ALUMNI I HAVE CONFIDENCE THAT THE UNIVERSITY REMEMBERS ME AND MY TIME THERE, AND HAS A GOOD UNDERSTANDING OF WHERE MY LIFE HAS TAKEN ME SINCE LEAVING.”**

**“AS A BENEFACTOR TO THE UNIVERSITY I NEVER FEEL PRESSURED, AND OPPORTUNITIES ARE PROVIDED TO ME WITH SENSITIVITY FOR WHO I AM, AND MY ASPIRATIONS FOR MY LEGACY.”**

**“Wine is one of the most civilized things in the world and one of the most natural things of the world that has been brought to the greatest perfection, and it offers a greater range for enjoyment and appreciation than, possibly, any other purely sensory thing.”**

Ernest Hemingway

# RELATIONSHIP MANAGEMENT & COMMUNITY ENGAGEMENT

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Enhanced relationship management and marketing capabilities to support productive and valued relationships with internal and external stakeholders and promote our research and learning services

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*Left: McLeod House, Waite Hub. The Waite Hub offers a relaxing place for students to meet, study, make social connections, exchange ideas and access technology services and support.*

*Photo: Sam Noonan/Ashley Halliday Architects*

## Harnessing the power of our local, national and global relationships, and our world-class reputation

### Point of view

Universities exist in a complex and interconnected global environment of ever shrinking distances, virtual venues, non-centralised institutions and an increasingly information-based economy.

A University's ability to leverage its reputation, ranking and relationships is key to attracting and retaining students, researchers, staff and industry partners, how it interacts with and is perceived by its local, national and the global community, and ultimately to its ability to achieve its educational and research mission.

In the 21st century the ability of a university to engage effectively, both internally and more crucially with the outside world, is essential to sustainable growth.

### What does the future look like?

The University has a holistic data-driven view of each student as they progress from prospective student, to current student, and on to alumni, and then as lifelong learners returning to the University.

Our relationship management capability allows us to support current and future students, professional and academic staff, researchers, industry partners, alumni, titleholders and donors. It also supports the management of relationships internal and external to the University for partnerships, research engagements, industry services and future collaborations.

When industry partners and external stakeholders contact the University, whoever they speak to is able to help them directly or to connect them with the right person.

We have developed a consolidated view of internal, local, national and international relationships across a range of cohorts including students, researchers, staff, and external stakeholders, enabling more personalised, effective and co-ordinated communication, marketing, recruitment, and other activities and events for our rich global community.

We leverage our knowledge so international alumni feel connected with our University community and have a part to play in its future, no matter where they are globally.

Stakeholder-facing teams across the University can leverage the readily accessible, searchable and relevant information and insights at an individual and cohort level to better anticipate the needs of students, researchers and other internal and external stakeholders at every interaction.

Data from external sources such as LinkedIn is combined with university-sourced data to provide a richer source of relationship information.

Insights on our expanded community of talent, including affiliates, honorary titleholders, volunteers and supporters, helps combine our strengths to best achieve our goals.



# SMART CAMPUS

Using innovative technology so our physical spaces embody and showcase our mission and values

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Exploring the use of the Internet of Things and Smart City technologies to open up our campus sites, enable greater connection with our communities, and optimise the use of our physical assets

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## Point of view

Expectations of a university campus today are markedly different to historically. Ease of interaction with social groups and access to services such as wi-fi, food, technology and support are seen as fundamental needs, but the provision of these services is expected to be in a sustainable and environmentally responsible manner.

Universities are increasingly relying on smart campus technologies to provide the opportunity for operational efficiencies in the delivery of services and enhanced experiences, but also to address key areas of university life – learning, living, and safety and security.

As we progress further into the 21st century, smart technologies are becoming more prevalent in every facet of university life, and leading universities are embracing and incorporating them further to achieve their goals.

## What does the future look like?

The real and virtual worlds blend in our physical spaces, with technology augmenting the senses of our University community and visitors, making it simpler and more efficient for them to interact with each other and our

campus services. Our campuses showcase and communicate our innovative and progressive mindset, and demonstrate our commitment to sustainable campus management and reducing our environmental footprint.

We acknowledge our connection to the Kaurna people as the custodians of the land we stand on, and we ensure that their history is clearly incorporated in our physical spaces through technologies such as augmented and virtual reality and electronic signage.

Technologies allow visitors to access information in their own languages, experience the University in a virtual world, and gain rich insights into our history.

Wayfinding and mobility-enhancing technologies provide greater accessibility and enhanced ability to navigate in and around our campuses for visiting academics and researchers, and the general public.

Our technologically-augmented physical spaces encourage both academic and social connectivity, blurring the lines between peoples' personal, professional and academic lives.

We continue to focus on the safety of our students, researchers, staff and visitors, leveraging technologies to provide greater visibility of how spaces are being utilised and the movement of people through our campuses.

We use smart technologies and sensing to optimise the operation and maintenance of our physical assets, continually improving our ability to monitor the energy, water and overall resource utilisation and consumption of our facilities. We use analytics on current and future demand to ensure they are met. There is an ongoing focus on operational efficiencies and cost reduction through more effective, sustainable and responsible use of our assets, consumables and spaces.

**“AS A UNIVERSITY WE ARE ALMOST 150 YEARS OLD, BUT THE LAND WE STAND ON AND ITS CUSTODIANS HAVE A MUCH LONGER HISTORY. WE CELEBRATE THIS THROUGH ENGAGEMENT AND EXPERIENCE ENHANCING TECHNOLOGIES IN OUR PHYSICAL STRUCTURES AND LOCATIONS.”**

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**“WE ARE CONTINUING TO BUILD THE UNIVERSITY’S REPUTATION AS AN INNOVATIVE AND RESPONSIBLE ORGANISATION BY EXPLORING THE USE OF TECHNOLOGIES AND INNOVATION TO MINIMISE OUR IMPACT ON THE ENVIRONMENT AND INCREASE SUSTAINABILITY.”**

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**“WE SHOW OUR INNOVATIVE AND INQUISITIVE APPROACH BY EMBEDDING TECHNOLOGY IN THE FABRIC OF OUR PHYSICAL CAMPUSES AND LOCATIONS.”**

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*Reconciliation touchstone, North Terrace campus. Visual symbols and Indigenous artwork will be increasingly complemented with technologies such as augmented reality to call out their significance.*



**“AS A STAFF MEMBER I HAVE CONTROL OF MY LEARNING AND DEVELOPMENT NEEDS THROUGH SELF-ASSESSMENT TOOLS AND ONLINE LEARNING RESOURCES.”**

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**“TECHNOLOGY HELPS US WITH QUICKER ON-BOARDING AND ORIENTATION OF STAFF, ENABLING THEM TO SETTLE IN AND BE PRODUCTIVE AND EFFECTIVE SOONER.”**

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**“I USE TECHNOLOGY TO FIND INFORMATION AND CONNECT WITH OTHERS WITHIN AND OUTSIDE THE UNIVERSITY TO BUILD MY NETWORK, SHARE IDEAS AND KNOWLEDGE, AND COLLABORATE ON JOINT OUTCOMES.”**

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# DIGITALLY ENABLED WORKFORCE

## Making it easier for our people to develop and grow, work, collaborate and connect

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Technologies that enable the University to actively engage and manage our talent; making it easier for staff to work, collaborate, and connect with each other through linked systems and data

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*Left: Adelaide Health and Medical Sciences building, Adelaide BioMed City. One of the many diverse campus locations where our University's 3,000+ staff work.*

### Point of view

The expectations placed on the workforce in the higher education sector are continually changing, making it essential to be able to easily identify, manage and develop talent on an ongoing basis.

Additionally, in recent years the way people work has incrementally but permanently changed.

Geographic distance does not matter and borders no longer exist in the digitally-connected global community, and the ability to collaborate locally, nationally and globally, to share knowledge and ideas and co-create outcomes is now essential.

By using technology to make working easier for their staff, leading universities are evolving to be more effective and remain relevant in this new world.

### What does the future look like?

The University has the ability to track and proactively manage our talent pool, so we have the right skills and capabilities to meet current and future needs as we ensure our culture supports our academic and research mission.

Information and digital tools are available to enable managers to have more effective conversations with staff, support their development, enhance performance and help them achieve their goals.

Access to personalised, flexible online learning and development systems and tools empower staff to have ownership and control over their skills and career development, essential in meeting our expectation of performance excellence across the University.

Online tools and resources provide personalised training that staff can consume at their preferred location, time and pace, and support faster and more effective staff on-boarding and orientation.

Our collaborative and connected academic community uses knowledge-sharing and collaboration technology platforms to co-create and share content and ideas across the University and with external partners and organisations – locally, nationally and globally.

Our University-wide use of contemporary communications tools and technologies supports and enables effective internal teams, and connects us with peers and external partners.

Historic tracking and predictive analytics related to staff credentials and qualifications enables proactive management of our disclosure and compliance requirements.

We are well known as a talent-based institution, attracting and retaining local and international talent to complement our existing high-achieving people and teams.

# TECHNOLOGY FOUNDATIONS

Core foundational technologies that are secure, easily accessible and reliable, on which to build our digital and information solutions

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Ongoing modernisation is key to sustaining our technology and digital services and powering the other seven key technology enablers.

The continued maintenance and securing of our existing technology landscape and assets, together with the platforms for data analytics, digital experience and enterprise relationship management, are the foundations on which we will build our core digital capabilities into the future, and are key to sustaining current service levels, and meeting future needs.

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## Point of view

The increasingly changing environment of higher education has led to universities embracing emerging technologies and innovative approaches to meet the rapidly evolving needs and expectations of their numerous stakeholders.

In this time of significant and relentless change it is imperative to ensure that the core foundations that underpin the evolving technology landscape are robust, scalable, secure and resilient, and provide ongoing value and capability to meet future needs.

Technology functions within universities are leveraging more cloud services and working within an ecosystem of specialist technology partners. This allows the delivery

of fit for purpose technology services and personalised experiences, while responding to pressures to keep costs in check.

## What does the future look like?

The high-quality technological experiences we provide are maintained as we progressively introduce new technologies and platforms to meet the evolving needs of our University community. The transition process is seamless and invisible.


Our sustainability-based approach to technology ensures increasing scalability and re-usability, which we combine with enhanced stability and security in the core platforms we use across our digital ecosystem.

We have confidence in the system capacity available to support our planned growth, maintain system performance, deliver research outcomes and conduct daily operational activities.

We reduce the risk that our students, researchers and the wider University community are adversely impacted due to system failure, malicious cyber security attacks, loss or corruption of critical data, or being unable to complete daily activities.

Information Technology and Digital Services continues to develop our people and skills in order to bring emerging, contemporary and innovative technology and associated practices from across the world to our stakeholders.

The operating model we use to deliver technology and services continues to evolve to ensure effectiveness and efficiency.

A man in a blue and white checkered shirt and dark trousers stands in a server room, looking down at a red tablet. He is positioned in the center of the frame, flanked by tall server racks filled with cables and equipment. The floor is a metal grating. The lighting is dim, with some light coming from the server racks and the tablet.

**“WE HAVE CONFIDENCE THAT ‘BUSINESS AS USUAL’ TECHNOLOGY ACROSS THE UNIVERSITY IS NOT AFFECTED AS WE CONTINUE TO IMPLEMENT OUR TECHNOLOGY AGENDA TO MEET THE AMBITIOUS FUTURE MAKING VISION.”**

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**“WE MAINTAIN OUR FOCUS ON REALISING VALUE ON OUR OPERATIONAL INVESTMENT IN TECHNOLOGY, AND IN EVOLVING OUR OPERATING MODEL TO ENSURE EFFICIENCY, EFFECTIVENESS AND OPERATIONAL EXCELLENCE.”**

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**“AS A MEMBER OF THE TECHNOLOGY TEAM I AM ENCOURAGED AND SUPPORTED TO CONTINUALLY BUILD ON MY EXISTING SKILLS AND CAPABILITIES, AND DEVELOP NEW ONES, TO REMAIN AT THE FOREFRONT OF TECHNOLOGY AND PRACTICES. I DO THIS IN ORDER TO BETTER MEET THE CHANGING NEEDS OF OUR STAKEHOLDERS.”**

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*Phoenix High Performance Computer (HPC), North Terrace campus. The HPC service allows researchers to improve time frames for analysis and processing of big data, increase complexity in models and simulations, and examine the grand challenges of our time.*



*Hub Central, North Terrace campus. Walk-up support from the Tech Crew.*



# OUR TECHNOLOGY PRINCIPLES

The core principles that guide our technology decisions

Technology is an enabler and supporter of our University and the *Future Making* vision. We design and align technology around University and individual need, rather than the other way around.

**“OUR EDUCATION MISSION WILL BE INCREASINGLY IMPORTANT IN A WORLD DEFINED BY TECHNOLOGICAL DISRUPTION AND TRANSITION TO AN INFORMATION-BASED ECONOMY.”**

Future Making



## PEOPLE

*The people who use technology are more important than the technology itself – we embed design thinking in our approach to gathering requirements and designing solutions to meet the needs of our University community*

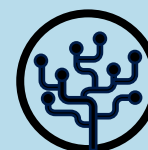
- Prioritise the human side of technology
- User-centric, not technology-centric
- Connectedness with our wider university community, including alumni and industry



## INNOVATION AND OPERATIONAL EXCELLENCE

*We leverage new technologies and ideas, sustainably, in order to continuously improve. Our environment nurtures creativity and fosters innovation to support ideation through to realisation of outcomes that have practical and real-world benefits*

- Innovative, intuitive and digitally integrated
- Drive efficiency and effectiveness, reduce complexity
- Continually provide value for our University



## FOUNDATIONS

*Ensuring we have a secure, stable, efficient and well-managed digital ecosystem on which to build our new digital capabilities*

- Reuse before buy, buy before build
- Preference cloud as a strategic advantage
- Well-defined governance
- Treat data as a crucial university asset, and ensure it is accurate, up to date and easily accessible





# LOOKING FORWARD

Technology to support the University of Adelaide to be the 21st century institution that our state and heritage deserve...

The challenges and opportunities of the future require both foundational technology elements that we need to function, and transformative technology initiatives to help us support the University to achieve our goals to increase international student numbers, optimise domestic student numbers, increase research income and performance, acquire and retain top talent, enhance alumni engagement, and provide a welcoming and engaging campus.

Building on these foundations, we will provide solutions to support and enable the delivery of new and innovative learning, teaching and research business models. We will continually enhance the digital experience across the University for students, researchers, staff, industry partners and our wider stakeholder communities.

We will provide real-time access to insightful and impactful data into how we operate as a university, empowering staff and enabling all university stakeholders to make evidence-based decisions. In parallel, we will enhance our relationship management to better engage locally, nationally and globally, and make the most of our invaluable reputation and connections.

*Left: Roseworthy campus*

## WHAT THE FUTURE LOOKS LIKE ACROSS OUR UNIVERSITY COMMUNITY...

### Learning

**‘My university knows who I am, anticipates my needs, and helps me achieve my life objectives, including my academic goals.’**

Students have a seamless experience, guided with digital tools to enhance their academic, social and professional activities. They drive and have choice in their own learning, as our University offers meaningful and relevant learning in applied and experiential ways: anytime, anywhere, and personalised to our students.

### Research

**‘My research and my professional development evolve in parallel, enabling me to meet global industry expectations.’**

Researchers have access to key insights for complex problem-solving with global impact. High performance technology solutions drive quicker, more accurate research outcomes, and researchers are better supported to identify opportunities and collaborate with industry and peer universities, both near and far. Access to reliable data provides a wealth of information, and researchers can process insights to rapidly shape leading research.

### Academic & Teaching

**‘I am empowered with real-time insightful and impactful data about my students to achieve world-class educational outcomes.’**

Academic and teaching staff share and co-create knowledge while supporting active inquiry in inspiring and engaging ways to increase learner agency and improve educational outcomes. They have the right tools to deliver content to all audiences, both within and beyond the classroom, to develop students’ discipline-specific and broader capabilities, skills and knowledge. They are well placed to broaden their students’ perspectives by bringing authentic real-world experiences into learning.

### University Staff

**‘I have a clear understanding of my performance, the people I support, and the goals of University initiatives.’**

Staff are empowered by data-driven insights to support evidence-informed practice and improve the experience of students, researchers and educators. They have the right tools and capabilities for effective collaboration across our University. Their focus on outcomes for academics, students and researchers is enhanced through the support of technologies such as process automation and machine learning.

### Alumni, Titleholders & Donors

**‘The university knows me and understands what matters to me. I feel like a valued member of, and partner in, our global University of Adelaide community.’**

Alumni, titleholders and donors feel engaged and appreciated by the University, which understands their past experiences, current work and life priorities, as well as the trajectory of their future. Communications are genuine and natural, with tailored and personalised suggestions, opportunities and ideas that resonate with them. They understand that being a member of the University network advances them professionally and socially, and that they have a stake – and an active part to play – in the future of the University.

### Industry, External Partners & the Community

**‘We are transforming lives and society, and are active participants in the economy, through the design and delivery of outcomes that are tailored for diversity and inclusion, impactful in nature, and accessible through multi-delivery models.’**

External partners are positively influenced by leading-edge research and by our students, academics and alumni. Local communities and industry benefit through inclusive learning experiences and are partners in the delivery of our education and research. Learning and life experiences, and strategic external partnerships, drive economic prosperity for South Australia and nationally.

We will embrace innovation, applying emerging and advanced technologies to deliver new experiences and services to meet the continually evolving needs and expectations of our University community as we continue to deliver world-class learning and research outcomes. This will result in an even greater ability to attract and retain talented staff, researchers and students.



