

University of St Andrews

Digital Enabling Strategy 2019-2023

1. Introduction

- 1.1. The Digital Enabling Strategy is one of five enabling strategies of the University Strategy and key to its delivery. It supports the four key themes of World-Leading St Andrews, Diverse St Andrews, Global St Andrews, and Entrepreneurial St Andrews and the overarching theme of Social Responsibility.
- 1.2. The primary aim is to develop a digital strategy that enables the realisation of our ambitions through utilising opportunities presented by rapidly evolving technologies.
- 1.3. We want the Digital Enabling Strategy to:
 - adopt a 'digital first' approach to transforming our core teaching and research activities by harnessing the potential of digital technologies to achieve improvements for users and by prioritising the use of smart technologies in a way that underpins our commitment to sustainability and to being a world-leading university;
 - ensure that we continually project and position the University in a way which effectively communicates our brand, ambitions and accomplishments.
- 1.4. These priorities are reflected in the following key priorities within the Digital Enabling Strategy:
 - Enhancing our digital presence
 - Providing robust digital platforms
 - Promoting digital innovation and creativity
 - Enhancing productivity and smart working
 - Enabling digital skills and engagement.

This document is accompanied by a table which maps out priorities against the pillars of the University Strategy.

2. Context

- 2.1. The University of St Andrews uses digital technology and platforms in a wide range of ways to support its work. Whether this is in support of teaching and learning, administration or research, our students and staff rely on technology to be always available, responsive and secure.
- 2.2. Over the last decade the University has adopted and experimented with many new digital technologies to replace or enhance services and ways of working. This has touched and improved every part of the University and supports nearly

every business process we have, transforming the way in which we work. As we review our current position and look ahead to our commitment to being world leading, we are well placed to build upon and further transform our student and staff experience of the University.

- 2.3. The current and future generation of students are digital natives and their expectations are of joined up, seamless digital platforms to improve their learning environment. Prospective students, current students, members of staff and external collaborators are far more likely to interact digitally with the University and its services and, as such need to have a positive digital experience. Our researchers and external collaborators expect the most advanced digital technologies, platforms and developments in order to explore, understand problems afresh, and deliver innovations, and to make sure these are relevant to our new, digital world.
- 2.4. This strategy will outline the University's approach to the new digital business paradigm including approaches to consumerisation and the potential opportunities that the digital world may provide. The University is recognised as a world-class place of learning and research, and there is an increasing need to ensure that we are positioned to exploit opportunities made available by new advantages and advances in digital technology.

3. Vision

- 3.1. To transform our University, our research processes and the delivery of our teaching by harnessing the potential of digital technologies to provide the best possible user experiences and to encourage 'digital first'. We will prioritise the use of smart technologies in all of our practices to underpin our commitment to sustainability and to make better use of our existing resources in preparing ourselves for our role as a world leading University now and in the future.

4. Scope and Impact

- 4.1. The Digital Enabling Strategy will be delivered through a detailed delivery plan which will influence the direction of travel of the University's ICT strategy. A separate ICT strategy will continue to be developed and will evolve to suit the current and future needs of the University by means of a clearly defined technology and systems roadmap supported by principles and standards. It is important to understand that while digital technologies themselves change rapidly they require supporting infrastructure to ensure digital services are resilient and secure. Many of these investments are long term and will go beyond the time span of the main University Strategy.
- 4.2. The ICT strategy will respond to the priorities of the digital enabling strategy and both will be influenced in resourcing steps by available funding. In this way both will interact and respond to the University's financial strategy. These strategies will be closely linked with dependencies carefully considered, including the development of a critical path and a set of key performance indicators which will track and record progress against all of the actions outlined.

- 4.3. The further integration of new digital technologies in the University will blur conventional operational and leadership boundaries, and therefore much closer cross University collaboration will be required to realise the potential of these innovations. This will also enable us to become a data rich organisation with the ability to exploit data for more effective and efficient decision making.
- 4.4. As the digital environment is a fast moving one, the digital enabling strategy will be subject to regular review to ensure the University takes advantage of emerging technologies. The proposed phasing of the strategy implementation is provided in Appendix 1.

5. Alignment to the University Strategy

Each Digital Strategy theme is aligned to the themes of the University Strategy as follows:

5.1. Social Responsibility

Social responsibility is a feature of all our digital decision making processes, and the University Strategy clearly supports this.

5.2. So that we ***espouse policies that improve rather than impoverish our environment*** we will:

- Improve organisational efficiency by promoting a 'digital first' agenda, thus continuing to reduce our carbon footprint by providing new ways of working.
- Develop and promote the use of online collaboration and communication platforms, reducing the requirement for staff to travel.
- Reduce transaction costs across all of our activities and thus the associated carbon footprint.
- Recycle and reuse our physical ICT assets in a responsible and sustainable way.
- Continue to procure solutions which are sustainable and fit in with our overall energy management approach.
- Promote a Green ICT agenda which will reduce the overhead associated with providing campus ICT and through appropriate purchasing decisions ensure that digital assets are procured in an environmentally sensitive way by looking across the supply chain.

5.3. Recognising ***that our day-to-day activities and plans for growth have a profound impact locally*** we will:

- Continue to develop our ICT apprenticeship programme, creating employment and addressing the significant skills shortage in the digital sector.
- Continue to support the wider cyber resilience agenda by participating in national and international groups, supporting training initiatives in the local community, and managing our own cyber security agenda.

5.4. **World-leading St Andrews**

World-leading St Andrews is both a distinction afforded to St Andrews and a perpetual challenge.

5.5. ***We are a small institution renowned for the quality of and impact of both our research and our teaching*** and will:

- Deliver a digital representation of the University that reflects our standing and reputation and supports its further growth.
- Develop world class 'digital first' approach which matches or exceeds that of our competitors.

5.6. ***We recognise...new styles of learning and working, and the role of digital technologies which lead to increased creativity, productivity, and collaboration*** and will:

- Continue to use technologies to enrich our teaching, developing interactive physical and virtual teaching spaces to support onsite and offsite teaching. Support enhanced collaboration and interdisciplinary research irrespective of geographic limitations and boundaries.
- Empower our staff to collaborate seamlessly by providing access to a range of digital tools.
- Modernise space to recognise new and diverse preference and styles of learning and working.

5.7. **Diverse St Andrews**

We recognise that as ***a truly international and world-class university, our ambition is to be a beacon of diversity and inclusivity***. In support of Diverse St Andrews, the Digital Strategy will:

- Ensure our digital presence is accessible to the widest range of people possible irrespective of device or platform.
- Ensure our web presence is accessible and meets the widest range of accessibility best practice guidelines and is device and platform agnostic.
- Ensure all students and staff have equal access to our range of support services.

5.8. To ***develop a culture of leadership that spans all levels of experience and background*** we will:

- Continue to support digital apprenticeships and internships.

5.9. **Global St Andrews**

5.10. Our international reach and demographic profile is highly distinctive. To ***consolidate our own position to achieve still more*** we will:

- Establish a physical space and virtual presence that enable the successful operation of Global St Andrews and create a welcoming environment for international students, staff, alumni and visitors.
- Enhance our global reach through the use of innovative digital technologies in our marketing and recruitment campaigns.
- Ensure our systems are accessible securely from across the world.
- Project a consistent digital identity globally through our online channels.

5.11. **Entrepreneurial St Andrews**

5.12. To ***strengthen our engagement with industry, business and policy makers, and increase our capacity for innovation and value creation*** we will:

- Provide solutions which will encourage and increase access to new markets.
- Provide access to platforms which facilitate collaboration and innovation.
- Develop new partnerships with industry to provide access to expertise and resources in the digital arena.

5.13. And to ***create a culture shift to raise awareness of potential opportunities*** we will:

- Support a culture of innovation through the provision of knowledge sharing platforms.

6. **Performance Measures**

Priority	Measures
Enhancing our digital presence	1.1. Page hits and subsequent actions on websites
Providing robust digital platforms	2.1. Availability of key systems and infrastructure 2.2. User satisfaction with IT services and our online presence measured on an ongoing basis
Promoting digital innovation & creativity	3.2. Increase in revenues from the exploitation of digital assets
Enhancing productivity & smart working	4.1. Reduction in printed output 4.2. All paper forms identified and plans implemented to replace them 4.3. % of staff with access to mobile technology as their primary device
Enabling digital skills & engagement	5.1. Increased training hours and participation in supporting digital literacy initiatives
Social Responsibility	6.1. % of University's electrical energy consumed by ICT equipment

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December 2019

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Digital Enabling Strategy - Framework

Enabling strategy priority	Scope	Priority	World-leading St Andrews	Diverse St Andrews	Global St Andrews	Entrepreneurial St Andrews
Social Responsibility						
<p>Enhancing our digital presence</p>	<p>Develop an enhanced digital presence across the organisation</p> <p>Deliver technology enhanced learning agenda</p> <p>Provide enhanced collaboration capabilities</p> <p>Embed Privacy by Design principle</p>	<p>SHORT (0-2 years)</p>	<p>Provide a competitive environment which handles personal data responsibly</p>		<p>Extend our global reach through the use of online systems accessible irrespective of location</p> <p>Improve user mobility by delivering more digital services that operate on multiple devices</p> <p>Develop a University mobile app which provides seamless access to a range of personalised online services and positions us well in an increasingly competitive market</p> <p>Continue to align with the Scottish Government cyber resilience strategy aimed at making Scotland the safest place online</p>	<p>Work collaboratively to share cyber threat information with our stakeholders and provide advice and guidance to others</p>

Enabling strategy priority	Scope	Priority	World-leading St Andrews	Diverse St Andrews	Global St Andrews	Entrepreneurial St Andrews
		MEDIUM (2-3 years)	<p>Deliver a digital representation of the University that reflects our standing and reputation and supports its further growth</p> <p>Deliver learning and research platforms that are seamless and integrated to enhance our current approaches and contribute to developing new ones</p> <p>Promote a 'digital first' approach to all our activity reducing paper and travel through enhanced online collaboration opportunities</p>	<p>Ensure our digital materials are accessible from any device and comply with the latest accessibility guidance</p> <p>Ensure that the University community is trained and handles data and privacy responsibly at all times</p> <p>Explore opportunities to use digital to further promote widening access and further flexible learning opportunities</p>		<p>Provide new tools and approaches that enable innovation and new ways to engage</p> <p>Provide a digital environment which provides opportunities to enhance our connections with others and increase our overall levels of engagement and collaboration</p> <p>Consider the opportunities to use the digital environment to explore new business opportunities including increased distance learning and other commercialisation activities</p>
		LONG (3+ years)		<p>Ensure our digital environment is fully accessible and complies with the latest best practice and legislation</p>		

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<p>Enhancing productivity and smart working</p>	<p>Implement web based application delivery</p> <p>Promote efficient and effective business processes and the use of artificial intelligence</p>	<p>SHORT (0-2 years)</p>		<p>Ensure our software applications can be accessed securely from anywhere to promote flexible and agile working and to enhance mobility</p> <p>Continue to contribute to sustainability by ensuring digital investments are aligned with best practice in energy and space efficiency</p> <p>Ensure our online teaching spaces are secure and responsive and that they meet usability and accessibility requirements</p>	<p>Ensure our systems and digital platforms are accessible from anywhere by exploring and implementing in country solutions where necessary</p> <p>Involve students and a broad range of other stakeholders in the design of our learning spaces and digital platforms</p>	
	<p>Provide flexible and scalable digital workspaces</p>	<p>MEDIUM (2-3 years)</p>	<p>Continue to embrace web based application delivery and digital solutions to promote, anytime, anywhere anyplace and device independent services</p> <p>Develop our learning environment to be flexible and scalable, to support digital solutions that fit seamlessly with</p>		<p>Encourage global collaboration across the University through the provision of appropriate tools and platforms</p>	<p>Explore new methods of teaching and learning that can be enhanced or made possible by digital technology and enable commercialisation where appropriate</p>

Enabling strategy priority	Scope	Priority	World-leading St Andrews	Diverse St Andrews	Global St Andrews	Entrepreneurial St Andrews
			interactive physical and virtual teaching spaces to support onsite and offsite teaching			
		LONG (3+ years)	Ensure that University business processes are streamlined, efficient and utilise appropriate modern digital technology including developments in artificial intelligence			Promote innovative ways of service delivery which seamlessly integrate with relevant businesses
Promoting digital innovation and creativity	<p>Embed digital first principle</p> <p>Share digital best practice</p> <p>Management of our data and digital assets</p> <p>Develop a robust information architecture</p>	SHORT 9 0-2 years)	<p>Empower our staff to collaborate seamlessly by providing access to a range of digital tools</p> <p>Develop a culture of sharing digital best practice and experiences across the University</p> <p>Develop our digital collections with more emphasis on making these available online</p>	<p>Ensure that all our digital services are accessible to all through multiple channels</p> <p>Improve digital provision for disabled students and staff by making more of our services available through different mediums</p>	Explore the role of artificial intelligence to improve collaboration and integration with our partners worldwide	Encourage entrepreneurialism through the adoption and use of digital approaches

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		MEDIUM (2-3 years)		Promote and co-ordinate national programmes to increase diversity in the areas of digital at the University	Deliver a St Andrews experience which is digital by design	Seek opportunities to commercialise our data assets Ensure that the digital and non-digital aspects of teaching, research and business are fully integrated
		LONG (3+ years)	Embrace digital to Innovate and lead the field in our core activities through utilising artificial intelligence and machine learning where appropriate			Consider the commercialisation of our digital assets and expertise as a route to new business opportunities

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<p>Enhancing Digital skills and engagement</p>	<p>Embed digital thinking and skills into the curriculum</p> <p>Enhance the digital literacy of our staff and students</p> <p>Develop a culture of continuous digital learning and development</p>	<p>SHORT (0-2 years)</p>	<p>Ensure that digital is embedded within curriculum design</p> <p>Embed a culture of learning and continuous development in digital that will enable and encourage students and staff to maintain and expand their digital skills to capitalise on trends and opportunities in the digital world</p> <p>Provide the University community with access to a wide range of engaging and easy to use digital courses</p>	<p>Continue to recruit and develop apprentices to support the digital agenda and provide solution at the point of need</p> <p>Use internships and provide part-time roles for our students to promote the acquisition of enhanced digital skills</p> <p>Promote activities which support digital wellbeing</p> <p>Embed digital literacy into our curriculum ensuring all students have the opportunity to enhance their digital skills</p>	<p>Ensure our students and staff are equipped for the digital world</p> <p>Ensure our students have all the necessary skills to make an impact in their chosen career of the future</p>	<p>Make the digital expertise and skills we have available to others</p>
		<p>MEDIUM (2-3 years)</p>				<p>Ensure our staff and students have the relevant digital skills to enable creativity and enterprise</p>

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		LONG (3+ years)				
Providing robust Digital Platforms	Implement infrastructure investments to build underlying digital ecosystem	SHORT (0-2 years)	Ensure the implementation of our digital services follow best practice and we are consistent in our approach	Embrace open standards and promote the use of open source software where it makes sense to do so	Promote the use of common data standards to improve the portability of student information	Develop and make available multi tenancy services to support our increasing business activity on campus
	Develop standards, consistency and interoperability across our digital universe Develop fit for purpose information architecture and analytics	MEDIUM (2-3 years)	Invest in new and emerging technologies that provide new opportunities for the University to deliver services in a different way	Continue to develop our sustainability agenda through the many low carbon initiatives we participate in	Build a digital ecosystem which will support our aspirations to be a leading global University	Utilise our data and digital assets in new ways to assist in informed decision making across the University Provide a digital infrastructure that supports the complex requirements of our business partners and learners who may be based on or off campus

Enabling strategy priority	Scope	Priority	World-leading St Andrews	Diverse St Andrews	Global St Andrews	Entrepreneurial St Andrews
		LONG (3+ years)	Ensure that our information architecture is capable of delivering robust and secure digital solutions which deliver access to information and data to all users with ease			