

Information Services Plan
2018 to 2021





Queen's University has a reputation for excellence in education and research - a reputation which is reflected in our position in the top 1% of global universities and in the top ten universities in the UK for Research Intensity.

Digital and Information technologies play an increasingly important role in all forms of business and social activity, not only in supporting the product or service, but as an integral part of the offering.

Business domains such as Retail, Financial Services, Media, Creative Arts increasingly make use of digital technology to improve the quality of their services, and enhance the experience of the customers and users.

Increasingly, effective use of digital technology will transform our library services, teaching environments and research activities to enhance the experience of our students and staff.

The plan is underpinned by our Core Values and focuses on three strategic priorities:

- Education and Students
- Research
- Innovation and Impact

The priorities are supported by three key enablers:

- People and Culture
- Infrastructure
- Funding and Governance

Each priority area and enabler will be delivered through actions and projects designed to realise the ambition articulated within the University 2020 Vision.

Our Information Services plan is being launched at a time of significant challenge to higher education in Northern Ireland.

Substantial reductions in Government funding, coupled with the uncertainty associated with the decision by the UK to withdraw from the European Union, make forward planning difficult. We will, however, approach these challenges with ambition, confidence and integrity, as we seek to secure a sustainable funding model and ensure a competitive and globally connected Northern Ireland.

I am delighted to launch this Information Services Plan as the road-map for the further development of our University's Dynamic Digital Experience over the next five years. I do so in the knowledge that Information Services can provide the tools and library resources to enable everyone at Queen's to maintain and enhance our global reputation.

Seamus Doyle

Director of Information



Education and Students

Information Services will support the delivery of high quality education, providing integrated professional services and world-class library and IT facilities that will enrich our students' university experience.

STRATEGIC PRIORITY

Strategic Priorities and Themes

Connected Campus

Aim: The delivery and support of a digital environment that enables students and lecturers to access personal and accurate information.

To achieve this:

- We will drive a 'mobile' first mantra. By default, all online services provided by Information Services will be readily consumable via modern mobile devices.
- Provide a service based on access anytime, anywhere, on multiple devices.
- Continue to acquire and deploy Digital Learning support.
- Using modern technologies we will explore opportunities to better engage with and manage the student experience.
- Provide the capability to record all lectures and make them available to students to re-enforce their learning.
- Continue to exploit a range of digital channels for communication, marketing, training and service delivery.
- Continue to develop our use of mobile technologies to exploit Social Media in support of our strategic priorities.
- Seek to continuously enhance e-resource access and management including review of emerging discovery tool options; further develop e-book services and management as this resource category continues to grow in importance.
- Expand and upgrade the capacity of the Campus Wi-Fi to meet increasing demands from students, staff and visitors.
- Develop a framework to enable the University to harness the benefits anticipated from the Internet of Things in a secure and efficient manner.
- Support the integration of services, tools and apps/plugins for Campus, Virtual and Distance Education Environments.

Library Services and Student Computing

Aim: To ensure that the Library Services and Student Computing facilities meet the needs of the student and research communities.

To achieve this:

- We will capitalise on the benefits offered by McClay Library Phase 3 and significantly enhance library facilities on the Health Sciences campus.
- Continue to invest in library resources to ensure that we can fully meet the educational and research needs of staff and students.
- As part of our commitment to inclusivity, Library Services we will continue to provide high quality support to students with disabilities and to identify relevant priorities for service improvement year on year.
- Contribute to student skills development and to a University Digital Literacy Framework/Programme for staff and students.
- Expand the Student Computing areas to provide reliable, contemporary and secure technology to support and facilitate teaching and learning.
- Increase the availability of Group Study areas and ensure they are supported by mature collaboration tools.
- Increase the number of Student Spaces for self-study, group work and content creation across campus in support of Faculty teaching and special initiatives.

Next Generation Tools

Aim: To provide access to the next generation of digital tools to prepare them for the digitally empowered workplace of the 21st Century.

To achieve this:

- We will work proactively with Faculties and Schools to provide access to appropriate High Performance Computing facilities.
- Seek to provide industry standard capabilities for visualisation of data.
- Enhance our media creation and management tools.
- Provide enhanced off campus access to data and services to staff and students.
- Seek to fully exploit the capabilities of Office 365 for both staff and students.

Ambition

-  National Student Survey 90% overall satisfaction
-  Campus Wi-Fi upgraded in 2019
-  Core storage capacity to reach 500TB by 2020
-  Network backbone to grow to 40Gb/100Gb
-  Library requests to access e-resources reach 4.5m/year



Research

Information Services will provide the tools and technology to support innovative research and inter-University collaborations, creating an inspiring research environment for our students and staff.

STRATEGIC PRIORITY

Strategic Priorities and Themes

Collaboration

Aim: To facilitate and support multi-site, interdisciplinary teams working on global research activities.

To achieve this:

- We will provide a pervasive, secure and responsive digital connectivity across Campus.
- Invest in modern team based environments based on Microsoft cloud technology.
- Support and invest in our Special Collections as an important contributor to collaborative research endeavour both nationally and internationally.
- Ensure library resource development activity meets the needs of research and reflects areas of institutional strategic priority. We must secure funding in line with increasing research income to protect the university's resource base in the run up to REF2021.
- Explore options to improve the discoverability of library resources (e.g. via retrospective digitisation of printed theses).
- Facilitate a common approach to collaboration technology across all our research activities, enabling researchers to participate in multi-disciplinary projects regardless of their location.
- Provide video conference to the desktop and via, dedicated meeting rooms facilities across Campus.
- Establish enterprise-wide collaboration tools, based on Office 365 products, as the primary communication vehicle for online projects internally, and externally, with business partners and for inter-University research and teaching.

Scholarly Communication and Research Data Management

Aim: Continue to enhance the organisation, management, curation, preservation and access to research data and outputs.

To achieve this:

- We will facilitate the sharing of data across diverse research teams in a controlled manner.
- Invest in data storage infrastructure to support Queen's growing research activity.
- Enhance support for Open Access in the build-up to REF2021.
- Continue our advocacy work and training with academics and research students and support compliance activity by validating records in the Institutional Repository.
- Work collaboratively with Research and Enterprise Directorate to support the University's Research Data Management Policy and activities.
- Upgrade our network to ensure our research community can access the large data sets they require in a compliant and timely manner.
- Deploy secure access methods to support the relevant publication of research to the wider community.

Digital Toolkit for Research

Aim: Provide researchers with the technologies and tools that supports the research lifecycle.

To achieve this:

- We will analyse High Performance Computing demands and deliver enhanced services to support requirements.
- Facilitate inter-university and multi-disciplinary projects and initiatives.
- Provide Visualisation Tools that aid 'big data' analysis, identify patterns and trends.
- Provide enhanced tools for Data Analytics and machine learning, to inform decisions and provide real-time information for smart dashboards and reporting.
- Support Artificial Intelligence activity providing environments for data gathering and analysis.

Ambition

- By 2022 increase by 150% the number of researchers with an ORCID id in Pure
- By 2022 validate over 25k records in the Research Portal
- Scope HPC environment updates
- All unique and distinct collections will be represented in the Library catalogue, Worldcat, RASCAL, Archives Hub and Europeana
- List all manuscript collections online.



Innovation and Impact

Information Services will enhance and expand its impact on the University and wider society through collaboration with a diverse range of partners both internally and externally.

STRATEGIC PRIORITY

Strategic Priorities and Themes

Connecting with Partners

Aim: To establish value added relationships with a diverse range of partners for mutual benefit.

To achieve this:

- We will deliver enhanced online dashboards for both user and system analytics, and for reporting purposes to inform decision-making and governance. These will be underpinned by effective business process management and analysis and workflow services.
- Support the Staff Student Partnership Programme as it becomes established to aid communication and decision making across academic areas.
- Deliver a web-services Framework, supported by an underlying data model, to allow University data to flow freely between appropriate systems (while maintaining business segregation) and to be communicated to staff and students in a digestible and timely manner.
- Our contracted services have a key contribution to make to Library Services income generation and to community support so we will continue to develop the services provided under contract to HSC personnel and the Agri-Food and Biosciences Institute.
- Continue to develop our ongoing programme of Library visits for a range of groups and individuals, especially our work with local schools which so effectively opens up the Library and its collections to prospective future students. During the planning period, we will also support wider University initiatives in terms of widening participation and support for non-traditional students.
- Introduce a Records Management capability to complement existing Document Management options for core staff and student users.
- Continue to improve the foreign language learning facilities and courses available to staff and students to assist with operating in a globally connected world.
- Enhance our partnership with Belfast City Council to support the City Deal bid, developing Belfast as a Global Learning city.

Ambition

-  Provide online secure environments for both internal and external teams in the next 12 months
-  Provide enhanced Reporting Services by 2020.
-  Explore the establishment of an integrated workflow engine to support core business processes
-  Enhance existing dashboard capability by 2021



People and Culture

Success in achieving our strategic priorities will require the creation of a positive culture, based on our Core Values of Integrity, Connected, Ambition, Respect and Excellence. We will support, encourage and empower our students and staff to attain excellence.

ENABLER

Strategic Priorities and Themes

Talent

Aim: To attract the best talent and create opportunities to build the capability of our staff.

To achieve this:

- We will continue to invest in our staff through the provision of an extensive range of learning and development opportunities.
- We will create an environment where staff are enabled to take responsibility for their own progression and development.
- We will ensure all new staff are supported through a comprehensive induction programme.
- We will look at options for cross team skill sharing and mentoring which will include IT support staff based in Schools.

Culture

Aim: To embed a positive culture by bringing our core values to life, making Information Services an innovative, welcoming and inclusive place to work and study.

To achieve this:

- We will embed our core values of Integrity, Connected, Ambition, Respect and Excellence in everything we do.
- We will continue to deliver with Schools our Cultural Awareness Programme for students, run by the Language Centre.
- We will endeavour to support an environment that encourages work life balance.
- We will implement Action Plans to address the challenges identified through the Staff Survey 2019.

Employee Experience

Aim: To create a positive employee experience for our staff which will increase engagement and performance.

To achieve this:

- The McClay Phase 3 development will bring staff currently located in Elmwood and Botanic Avenues into the McClay building improving communication and collaboration within the team.
- We will encourage collaboration and provide opportunities for Information Services staff and related staff to connect across campus.
- We will provide timely and effective communications, ensuring staff are informed and engaged.
- We will continue to consult with our staff in taking forward our strategic priorities.
- We will maintain our position as a leading UK University Library.
- We will retain our Customer Service Excellence accreditation for Library Services.
- We will seek formal accreditation for our IT Services from the Service Desk Institute, a leading global community for everyone working in the IT Services industry.

Ambition



Fully implement Staff Survey outcomes.



Achieve SDI accreditation for core IS Services.



Retain CSE for Library Services.



Extend the Cultural Awareness Programme to all University Schools.



Equip IS staff with the skills necessary to deliver our Plan.



Infrastructure

Over the next five years, we will seek to invest an additional £20 million in IT Projects and Library facilities to enhance an environment that stimulates, enables and supports the delivery of world-class education and research.

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Strategic Priorities and Themes

Enhancing Education and Research Infrastructure

Aim: To provide world class education and research facilities for our students and staff.

To achieve this:

- We will invest in digital infrastructure in support of wider University priorities.
- Publish and deliver a comprehensive road map for our digital network delivering a world class user experience.
- Fully support the use of Office 365 as the core business tool of the University for productivity and storage.
- Continue to grow and develop our HPC and Research Data hosting service and work with researchers to drive uptake.
- Continue to enhance the Library Management System functionality and monitor developments in the LMS market place with emphasis on cloud, open source and collaborative initiatives.

Delivering a Dynamic Digital Experience

Aim: To develop a 'Digital University', harnessing technologies to deliver an exciting and dynamic user experience.

To achieve this:

- We will drive a mobile first agenda for our core student and staff services.
- Adopt best practice for future Digital Campus development.
- Enhance the educational experience by supporting the implementation of the University Digital Learning solution based partly on the new Virtual Learning Environment.
- Support the enhancement of the digital skills required by our students and staff.
- Utilise data analytics to improve the operational efficiency of core business systems and services.
- Enhance the Digital Experience by integrating core activity information, reports and messaging in a Common Enterprise Service.
- Deploy and enforce appropriate security strategies.
- Continue to expand virtualisation services within the Data Centre.
- Explore opportunities to use cloud services to support core activity.

Supporting Central Computer facilities for Teaching and Study

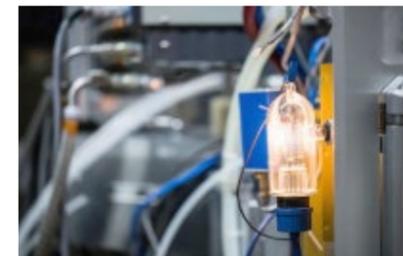
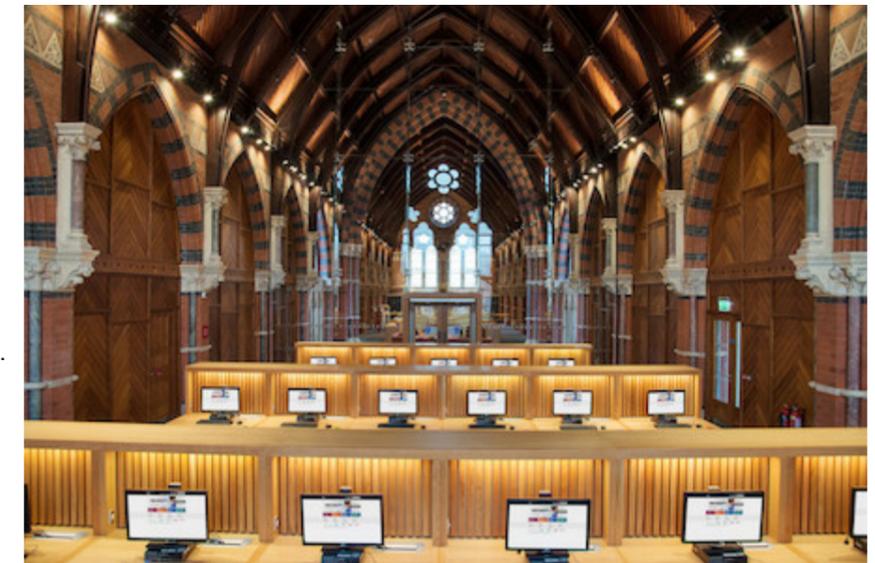
Aim: To digitally enhance our Teaching and Study facilities to deliver a Student Experience rivalling our competitors.

To achieve this:

- We will enhance support for lecture capture with potential to cover all subject areas; this will involve new facilities being installed in the main teaching rooms.
- Develop the digital capabilities of our Lecturing and Teaching Spaces to improve student participation and collaboration.
- Provide new and enhanced areas to support Student Group Work activities and coursework.
- Continue the development of our infrastructure to support collaborative projects for staff and students, both inside and outside the University.
- Encourage the adoption of paperless working practices in support of our carbon neutral goals.
- Update the technology available in the core meeting rooms to facilitate collaboration and group work.

Ambition

- 100% mobile devices encrypted.
- 99% of PCs and devices at latest patch level.
- 10 Petabyte research storage infrastructure in place.
- 50% of lectures recorded and stored by 2021.
- Exploit cloud services where appropriate to support core provision.



Funding and Governance

We will bid for capital investment to implement this Plan and ensure its delivery is underpinned by effective governance and strong financial management to position Queen's as a leading Digital University.

ENABLER

Strategic Priorities and Themes

Sustainable Financial Strategy

Aim: To effectively manage the IS budget to support education, research and investment in innovation.

To achieve this:

- We will maximise our use of shared digital services across the University.
- Continue to exploit the benefits of virtualisation.
- Ensure all resources are deployed intelligently to support our strategic priorities and the delivery of target outcomes.
- Effectively manage a Rolling Plan of investment in new technology and equipment for the duration of this Plan.
- By diligently evaluating new and emerging technology we will make recommendations for new future investment, with a view to enhance the Student Experience and deliver on the Smart Campus Agenda.

Governance and Risk Management

Aim: To operate an effective system of corporate governance and risk management.

To achieve this:

- We will adhere to the University's comprehensive risk management and internal audit processes.
- Focus on the continued rollout of the Project Management Office to embed modern programme management techniques and frameworks, for example, Agile and Lean Methodologies.
- Extend the IS Programme Board to oversee and govern all core IS Projects and Programmes.
- Collaborate on a 'One University Agenda' with Faculty and Professional Services to gather needs and identify appropriate services and solutions for our primary stakeholders.
- Partner with Procurement Services to help ensure value for money on IT equipment and software purchases and to avoid duplication and potential risk.

Ambition

-  To operate all core services from our Virtual Environment.
-  To extend our Project Management Office to oversee all core IS Projects.
-  Maximise value for money and benefits realisation for key business systems and services.
-  Deliver on the Smart Campus Agenda to achieve a digitally enhanced Student Experience.
-  Secure the investment necessary to maintain our position as a leading University delivering technology enhanced services for Education and Research.



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