

Information Strategy 2013 – 2018



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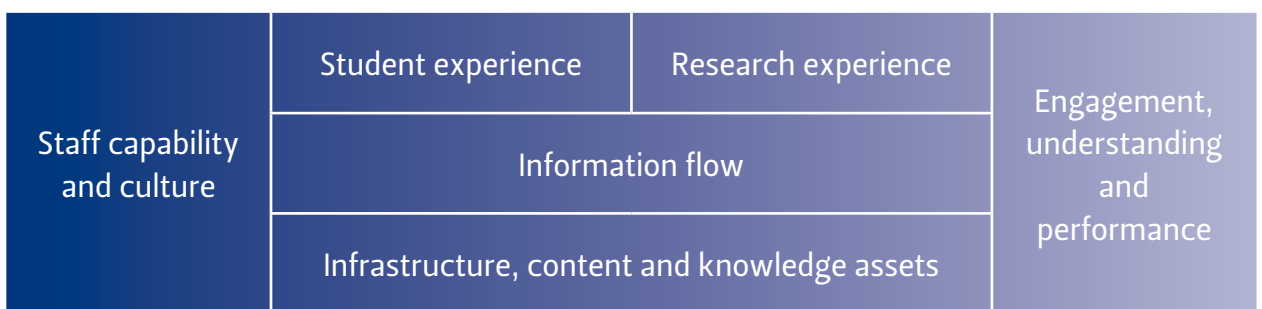
The core document was created and edited by Stephen Town, Director of Information, Ian Hall, Executive Officer for Information Strategy, and John Robinson, PVC for Learning, Teaching and Information. It was considered at three stages by the Information Strategy Group and approved by them on 15 July 2013.

The supporting documents were created and edited by members of the Senior Management Team of the Information Directorate.

Further information and documentation can be found on the Information Strategy website:
www.york.ac.uk/informationstrategy

1. Executive summary

The overall aim of the information systems and services in the University of York is to create an information environment that supports, facilitates and enhances the teaching, research, business and community activities of a world-class University. This document translates that aim into priorities for 2013-2018, and defines a strategy for action and investment in information. Summarised in the diagram below, the strategy consists of six programmes that lock together into an integrated framework.



Choices embedded in the strategy include focusing investment towards distinctive world-class innovation and towards facilitating the flow of information. We envisage a University in which all work together to improve and achieve information service access, equity and inclusivity.

An outline implementation roadmap is laid out, in a vision-led, outcome driven format for each programme. Twenty-seven strands of action are identified to achieve the strategy.

2. Vision and values

2.1 Introduction

The Information Strategy for 2013–2018 expresses the priorities of the University for Information Services and Technology and defines a framework for activity and investment in information. It draws on the outcomes of the previous strategy and consultations with service users, senior managers and the staff providing services.

2.2 The University Plan and strategies

The University Plan 2009–2019 focuses the vision for the University on the creation, sharing and application of knowledge. Information systems and services are a fundamental part of this, and feature strongly in supporting strategies such as the Teaching and Learning Strategy and Research Strategy. The Information Strategy must help fulfil the University's plan and its subsidiary objectives.

2.3 Vision

The Vision for Information as articulated in the previous Information Strategy remains consistent with the University's plans and strategies: "The overall aim of the information systems and services in the University of York is to create an information environment that supports, facilitates and enhances the teaching, research, business and community activities of a world-class University."

2.4 Values

In support of a strong basis for effective working and strategy achievement, the providers of information services and systems to the University value:

- **Scholarship:** we work to add value to research, teaching and learning
- **Honesty and transparency:** we act with integrity and communicate openly
- **Customer focus:** we provide excellent service and exceed expectations
- **Respect:** we value and respect each other and work with shared purpose
- **Inspiration:** we have a forward thinking culture, encouraging contribution from all.

2.5 Strategic principles

The vision and values are realised in the following **Principles** for information service development, design and delivery:

- Listen to customers and offer what they need.
- Work in partnership with users, customers and suppliers.
- Measure performance and proactively seek improvement.
- Ensure services are environmentally friendly and sustainable.
- Be leading edge, but not adopt unproven technologies.
- Offer services, not just products, systems or technology.
- Understand the total cost of ownership when purchasing.
- Create distinctive services in-house; consider external supply for commodities.
- Ensure services are easy-to-use, easy-to-change, stable, resilient and secure.
- Increase simplicity and reduce complexity.
- Remove bureaucratic work from academic and research staff.
- Save time and cost and repay the effort of service users.
- Share services and development where possible.
- Support and encourage use by training, help and explanation.
- Be available when and where needed.

3. Environment

3.1 External trends

The University Plan defined the main external environmental challenges faced by the University. Considering these afresh, and adding analysis of trends in the information environment, a number of new or increasing pressures emerge, including:

- Economic pressures arising from reductions and greater competition in research funding, and the move to the new fees arrangements for teaching.
- Expectation growth
 - Consumer IT influence on tools and devices
 - Student expectations arising from fees changes
 - High quality, easy to use services
 - Demand for digital content.
- Open research compliance requirements applied to
 - research data management
 - open access publishing.
- Increasing range of choices for IT technology and the location of services (distributed, centrally in the University, or in the Cloud).
- International competition in higher education
 - Benchmarking against international standards
 - Concentration on league table related measures
 - New methods of course delivery, including MOOCs.
- Increasing legislation and regulation, and consequent compliance demands.

The environmental trends driving information and its delivery push beyond the reactive management of procured technology, services and resources towards:

- Active curation of institutional knowledge assets.
- Growth in personal curation and its consequences.
- Loss of control of the multiple access routes to our own and other information resources, resulting in our services being mediated by other parties.
- A resulting requirement for increased efforts to mobilise and exploit all information assets.

In summary, the future is likely to require:

- A broader concept of the range of information to be managed.
- A more informed, proactive and engaged approach to service delivery.
- More dynamic and flexible services responding to a rapidly changing environment.
- People who are effective in this context and environment.

3.2 Local environment

The successful development and delivery of information systems and services in the University is shaped by local environmental factors. These include:

- Physical environment
 - The physical environment at York is a mixture of building ages on Heslington East, Heslington West and in the City Centre. This presents significant challenges for network coverage and equitable distribution of services and facilities. Work and resource will be needed to maintain suitable information environments in all locations, including working with other University departments.
- Organisational environment
 - York's departmental structure strikes a particular balance between centralised efficiency and devolved autonomy. The continuing development of this structure will provide opportunities to address inefficiencies and inconsistencies that presently demand additional Information provision and support. The Information Directorate will engage with these developments while leading on the introduction of appropriate commoditised services that benefit the University.
 - Assuring information policy compliance across the University is complex, so priority will be given to simplifying, clarifying and realising effective compliance.
- Planning environment
 - Information needs of academic or support developments cannot be confidently predicted from historic precedent. Moreover, the changing nature of costs and prices for information content means that budgets must adapt efficiently. Therefore close working between Information managers and both planning and finance colleagues will be necessary.
 - The revenue budget has limited provision to sustain information infrastructure and content provision. Careful articulation of capital and revenue budgeting must be managed with colleagues in finance to ensure that adequate sustainability costs are included.
 - Effort is always needed to work on a broader basis with partners, negotiate better deals and prioritise our funding to support development expectations.

3.3 Progress on previous strategy

The information landscape at the University has been transformed over the last strategy period, with significant developments across the range of information activity.

A reflection on progress against the 2008–2013 strategy is provided in a separate strategy appendix document. Of the fifty-eight lines of action in the previous strategy, many are complete, and fifty-one have received at least some attention.

Notable highlights include:

- Physical space improvements, through the successful refurbishment of the Library and opening of the Harry Fairhurst building, alongside learning space upgrades.
- A step change in commodity IT and collaborative tools provision, with the introduction of Google Apps and the improved managed desktop.
- The extension of our range of content, with improvements in journal backfile provision, digitisation support and the launch of the Digital Library and Electronic Texts service.
- Investments in infrastructure, including increasing wireless provision, network support for Heslington East and a new printing service.
- Improvements in business and academic systems, including upgrades to key business systems (e.g. student systems, VLE, timetabling), further systems integration, new discovery tools such as Yorssearch and launch of new portals.
- Use of new approaches to embed continuous improvement, through tools such as lean and agile methodologies, and resulting in sector-leading radical change through innovations.

These achievements have been possible through the creativity and effort of both staff and users. The financial support of the University through capital funding for projects and infrastructure has also been a key enabler for these developments.

3.4 Organisational position

The information systems and services provided by the University are significantly stronger since the launch of the previous strategy:

- In most areas the University is using best-of-breed systems also employed by competitors.
- Our IT infrastructure is now more robust with new data centres and wireless availability much more widespread.
- In some cases the University can now claim to be at the forefront, for example, in the implementation of Google Apps for staff and students, in printing provision, in the virtual desktop offering, in its Flexible Loans policy, in student device services and in our digital library.
- The Library building complex is now regarded as a national exemplar of innovative redevelopment.
- Archives and special collections continue to grow and develop in scale and reputation.
- Satisfaction measures continue to rise now refurbishments are complete, and benchmarking of survey results provides data on our healthy international competitive position.
- Relationships with collaborators have been strengthened through membership of RLUK, a greater range and depth of collaboration with White Rose libraries, and an excellent partnership with the Dean and Chapter of York Minster in the operation of the Minster Library.
- Engagement with our main user groups has improved, and the advocacy and marketing of services is transforming in both appearance and substance.
- We are now providing an exemplar across the University of service development and innovation through the use of lean, agile and change management approaches.

A separate strategy appendix document highlights some areas where limited progress was made during the previous strategy period. In some cases this has been due to changing priorities, which are reflected in this new strategy.

The challenges include:

- Digitisation and embedding of digital content for both learning and research use is not yet as well developed as at some competitors.
- Accession to the Russell Group means our comparators are mainly larger and with higher levels of historic and recurrent investment in information systems, services and content.
- Provision of information content is still regarded as insufficient in some subject areas.
- The proliferation of information systems in the University continues to provide a challenge. The increasing demand for both systems integration and additional development of existing systems has limited work on combining of data for ease of use and improved performance, one of the main objectives of the previous strategy.
- Uncoordinated departmental IT spending can result in duplication, inefficiency, unnecessary complexity, and fragmentation of services.
- Although strong information services and systems are now available, these are not always well embedded into the life- and work-flow of users, who require training and support to exploit them to their full potential.
- Information policy and compliance are not high in many users' awareness.
- Many processes within central services and across the University have not been reviewed recently.
- Change can be difficult even when it leads to much improved systems and services. More effective enablers of change will accelerate new service developments.

4. Strategic framework and themes

4.1 The six strategic programmes

Realising our vision in the context of the environment requires a robust framework with clear themes or programmes.

The strategy consists of six key strategic programmes for achieving and sustaining our information activities:

- A. Learning, Teaching and the Student Experience
- B. Research Excellence
- C. Information Flow
- D. Infrastructure, Content and Knowledge assets
- E. Engagement, Understanding and Performance
- F. Staff Capability and Culture.

The two foreground themes of the academic enterprise requiring information support are education and research. These appear in our first two programmes. The third programme recognises that effective and efficient information flow from many sources to users propels excellence and efficiency in research, teaching and learning. The fourth programme is based on recognition that those information sources and technologies must exist and be available in an organised and managed way. Programmes E and F are the key enablers of user and information staff expertise respectively.

4.2 The framework: Interconnecting the programmes

The programmes of the strategy lock together in a conceptual framework that emphasises the interconnection between programmes. For example, a project in the research excellence programme is likely to use work from the information flow programme, undergirded by the sustainable infrastructure, content and knowledge assets.

Student Experience is an important element of our University approach so it features prominently in the strategy. Research received less attention in the previous period, but recent national developments in opening up research data and publishing require substantial change in the forthcoming period. This will require the creation of completely new University-wide information services, systems and policies.

The Information Flow programme will focus on innovation to improve the availability and delivery of information. It involves putting services more directly into the workflow of users, as workflows are reconsidered in the networked environment. Information services will be offered as finished products which repay any effort involved in their use. An integrated and unified experience must also be achieved, in a context where users have multiple presences across fixed and mobile technologies.

The University's IT infrastructure and the information content to support teaching, learning and research will require sustenance and development in the forthcoming period. Adding our University Knowledge assets into this layer of the diagram puts an onus on improved management of the University's outputs and intellectual capital. The growing importance of unique and distinctive information created or owned by the University to competitive differentiation is also recognised here. Information in digital form is key to a future effective University, so the strategy must drive digitisation forward strongly to achieve a "Digital York".

Finally the two pillars of Engagement, Understanding and Performance and Staff Capability hold the strategy together by the development of efficient and engaged users, learners, researchers and information support staff.

4.3 Critical success factors

There are six critical success factors for measuring the success of the Information Strategy. We must:

1. Meet information needs
2. Ensure sufficient resource to achieve aspirations
3. Inspire and enable innovation
4. Engage the University community
5. Align with University plans
6. Manage risk and comply with regulation.

4.4 Choice and resource shift

Our strategic choice is to invest in information provision for an outstanding world-class University. Resource must be focused on providing elements which add value and, where appropriate, differentiate us from the competition. We should build on existing strengths, or develop new strengths, which are excellent, sustainable, inclusive and distinctive.

The main resource shift required in the new strategy period is towards investing in the Information Flow programme.

Innovation will be created within the Information Flow programme with resources used to nurture innovative and distinctive services. The concept of a “Digital York” in which all important assets are made available digitally is key to the strategy. In constrained circumstances resources may need to be saved in areas which are not distinctive or excellent, do not conform to international standards or advance sustainability. Additional or saved resource should be used to strengthen staff and technical capability for delivering projects which make a difference to University excellence.

Strategic information investments will need to be made carefully to ensure they deliver value to our users. This requires engagement with users in design, and full control of project resources so that quality is not compromised. It implies stronger mandates, support and resourcing for information projects. It also implies following through on the **effective coordination of all information-related staff across the University to work together towards a less fragmented and more inclusive University information landscape.**

5. Implementation

5.0 Governance and management framework

The Information Strategy Group will sponsor the strategy and oversee its implementation. The governance framework for information was revised in 2012, is undergoing further changes and reconsideration, and will be used to support the Information Strategy implementation.

The main management framework for achieving the strategy will be the Information Directorate. The Directorate is the delivery vehicle for many components of the University's information technologies and services, and it has the means to drive forward strategy through its staff and structures. The plan also requires the Directorate to provide leadership and influence into areas it does not directly control.

The Information Directorate is in the process of reviewing its staff capacity, capability, and culture in relation to this strategy renewal, and the resulting people strategy will be a supporting document of this strategy.

The approach of managing programmes through Cabinet Office Managing Successful Programmes (MSP) concepts and frameworks, and managing individual projects in a standard way using accepted methods such as modified PRINCE2 or Agile will continue.

Responsibility for leading and managing elements of the strategy will be considered and defined in the overall programme and project list. The Information Directorate will provide programme leaders, support for individual projects, and the programme office. Monitoring will be achieved through the Information Strategy Executive. Project involvement will be considered on a project by project basis using standard methodologies to ensure stakeholder involvement. The Information Strategy Executive will report regularly to the Information Strategy Group on progress.

The roadmap which follows defines the elements of the Information Strategy in further detail.

Supporting documents include:

- An IT Plan, defining the technology options and choices to fulfil the strategy.
- An Information Systems (IS) Plan, to define the systems requiring development or renewal within the strategy timeframe.
- A governance framework diagram, including a staffing plan for the Information Directorate which allocates leadership and staff resource for each of the 27 strands of action.
- An Objectives Plan for the first year of the strategy (2013/14) with key priority projects identified.

These documents will be developed and amended over the lifetime of the strategy.

5.1 Programme A: Learning, Teaching and the Student Experience

Vision

Information technology and services for teaching, learning and support which enable students to reach their full potential

Outcomes

- Effective and most appropriate provision of content
- Increased student satisfaction with learning resources
- Better use of information sources in teaching
- Student records and information fit for purpose
- Services that meet the needs of departments in supporting students
- Learning spaces that meet student needs
- Effective management of teaching and learning spaces.

Strands (themes or sub-programmes)

- A1.** Satisfying students by meeting their needs as they encounter the information environment, and embedding resources and tools into their preferred patterns of life and study
- A2.** Developing and supporting e-processes and services for students to simplify and enhance their engagement with the University
- A3.** Service with excellence as the standard and with empathy for, and tailored to, the individual student
- A4.** A sufficient and appropriate variety of space for learning and research for students

Project or action line examples

- Student systems developments
- VLE review and development
- Campus Learning Space Development
- E-Assessment
- E-Assignment
- Lecture Capture Service
- Customer Service Excellence
- Academic Administration Systems

5.2 Programme B: Research Excellence

Vision

An information environment which provides excellent and effective support for researchers across the research cycle

Outcomes

- Information resources to support University and departmental research strategies
- Easy access to archives
- Business systems and processes to support research
- Services to support research grant management
- Open Access service, policy and processes
- Research data management service, processes, policies and infrastructure
- High Performance Computing (HPC) exploited by all relevant disciplines
- Effective knowledge management of all University research information and data assets

Strands (themes or sub-programmes)

- B1.** Information support for the research life cycle to provide a coherent service across all elements of the research process
- B2.** A partnership for research publication, through Open Access policies and processes, repositories, new formats, and traditional methods
- B3.** Management and exploitation of research data across the institution
- B4.** Provision of a high performance computing service to support research across the institution

Project or action line examples

- Research Data Management System
- Open Access Policies and Processes
- High Performance Computing Service
- Research Administration Support Systems

5.3 Programme C: Information Flow

Vision

An excellent and innovative layer of service that facilitates and embeds the flow of information into other work- and life-flows

Outcomes

- The right resources in the right place at the right time
- Interoperability of systems and data sharing and combination
- Compliance
- Agile development processes
- Availability of appropriate management information
- Expertise and advice
- Integrated systems
- Clear processes for demand management and prioritization
- Maximising electronic content delivery
- Maximising discovery; people knowing what we have
- Easy access to information using different devices
- Easy access to services securely from off-campus
- Online access to unique content
- Users engaged in service design and development

Strands (themes or sub-programmes)

- C1.** Access to services in a simple, fully inclusive way for all stakeholders
- C2.** Digital content delivered to the point of relevance
- C3.** Discovery and web site services of a competitive standard
- C4.** Raised awareness and take up through better help, support, and service clarity
- C5.** Removing process barriers to development and improvement, through clear prioritisation and modern development methods
- C6.** A planned approach to increasing integration and interoperability
- C7.** Consistent and equitable services for all University users, through removal of duplication and more centralised coordination

Project or action line examples

- Access to systems, services and content from a range of platforms and devices
- Library Management System improvements
- Digital Library development
- Off-campus access to services
- Service Oriented Architecture
- Modern development environments
- Visitor access to services
- Website content improvements
- Improvements in identity management
- Single Sign on to services
- Records management system
- Digital Archiving
- Archive catalogue improvements

5.4 Programme D: Infrastructure, Content and Knowledge Assets

Vision

A sustainable and reliable infrastructure composed of technology, information content and the University's knowledge assets

Outcomes

- Collections that meet research and learning needs
- Unique resources that enhance teaching
- An Information Infrastructure that has the following characteristics: available, of sufficient capacity, agile, resilient, consumable, economic, shareable, relevant, secure, compliant, and environmentally sound
- Unified communication including telephony, wifi and wired network
- Technology enabled learning spaces
- Fit-for-purpose computing and storage
- Information Infrastructure that meets the day-to-day needs for business continuity
- Conservation and preservation programme

Strands (themes or sub-programmes)

- D1.** Increasing exploitation and leverage of the University's knowledge assets
- D2.** Relevant collections of special and unique content across a diversity of formats
- D3.** A commitment to an increasingly "Digital York"
- D4.** Commoditisation of core IT services to provide transformational benefits
- D5.** A unified network offering sufficient capacity
- D6.** A technology architecture fit for the whole enterprise
- D7.** A sustainable physical infrastructure across all campuses and locations to support the strategy

Project or action line examples

- Heslington West and King's Manor Wireless Improvement Project
- Supporting new developments on Heslington East
- Infrastructure Monitoring
- Commodity IT definition
- Business Continuity Planning
- Green IT
- Storage Review
- Security improvements and embedding across the university
- Service Catalogue
- Digital content collection improvements
- Improved metadata storage and usage
- Research collections
- Collection profiling
- Special collections and archives review

5.5 Programme E: Engagement, Understanding and Performance

Vision

*Excellent engagement, understanding and communication with users and other stakeholders
Excellent performance driven by user-related data and measurement*

Outcomes

- Users who are confident and competent at using services
- Greater understanding of the needs of users
- Services to match the needs of our customers
- Understanding the content requirements of courses
- Efficient and effective operations
- Activities aligned with business
- Performance measurement
- Users who are aware of information services, systems and the support available
- Partner for the University in its choice/development of effective business processes
- Services to support business processes
- Simple and transparent processes
- Our services will have defined standards/service levels
- Engagement and communication model
- User needs driven business systems development

Strands (themes or sub-programmes)

- E1.** Engagement with users for understanding need so that services are user-designed and driven
- E2.** Education, training and communication for effective service use.
- E3.** Methods and measures to achieve improving performance in information management

Project or action line examples

- Training review
- Information Technology Liaison Process
- Academic Liaison Core Reading improvements
- Key Performance Indicators
- Website development
- Service catalogue
- Communications planning
- Communications systems
- Records management support service for the university
- Student engagement process
- Enquiry handling system

5.6 Programme F: Staff Capability and Culture

Vision

Information staff across the University who are committed, capable and working as one for excellence and innovation

Outcomes

- Staff with the capability to provide information services for the University
- Culture of continuing innovation
- Organizational structures and processes that facilitate information provision
- Culture of responsibility for information security
- Culture of continuous improvement
- A joined-up approach to information provision

Strands (themes or sub-programmes)

- F1.** A planning and governance framework focused on strategy delivery
- F2.** Motivated and flexible people for excellent service and strategy achievement

Project or action line examples

- Organizational structures to deliver information
- Information security engagements
- Application of LEAN methodology



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