Update to the Digital Campus Programme and University IT Strategy

Executive Board considered the KPMG review in November 2011 and accepted the five key recommendations. However, whilst the report was primarily about value for money, compliance and reducing risk, EB agreed that these should not be the only issues to consider. IT has changed the way we work, and innovation, new forms of communication and the ability of staff to flourish in the digital environment are crucial. The Digital Campus Programme of change covers four areas: An academic–led future look at IT (including use of social media, cloud computing etc); strategic positioning of the University; Digital Literacy and Implementation of the recommendations from the KPMG report. The programme brings these themes together in a series of projects to:

- Enhance the University’s mission in teaching, research and engagement
- Enable staff and students to improve the way they use technology. This will enhance the skills of individuals and the competitive position of the University
- Deliver a university model for IT, providing Core and Local services to a consistent standard

The Digital Campus programme is a huge undertaking that will take time to scope, plan and implement and will need to be responsive to change alongside new technologies, developments and obligatory requirements. A University-wide IT strategy will be a compass to set the direction of travel for delivery of a Digital Campus over the next two to five years.

To date the programme has commenced, and in some cases completed, a number of projects to support the four themes:

*An academic–led future look at IT (including use of social media, cloud computing etc)*

<table>
<thead>
<tr>
<th>Completed</th>
<th>In Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Role of technology and digital services to enhance and support learning and improve student experience - Digital Institute</td>
<td>• Research data storage and curation working group led by Prof Nick Wright (June 13)</td>
</tr>
<tr>
<td>• Mobile Apps for students developed and implemented</td>
<td>• Tissue bank replacement project (September 13)</td>
</tr>
<tr>
<td>• Task and Finish Group recommendations on the Future Development of Systems to Support Learning, Teaching, the Staff and Student Experience</td>
<td>• Module evaluation system (July 13)</td>
</tr>
<tr>
<td></td>
<td>• E learning Strategy (June 13)</td>
</tr>
<tr>
<td></td>
<td>• Digital Humanities project - Ian Haynes and Peter Stone</td>
</tr>
</tbody>
</table>
The external facing component i.e. strategic positioning of the University

Completed

- Social media engagement success e.g. at open days 2012
- Vision for and approval of a Social Media and Student Recruitment strategy (Jan 13)
- Improvements to facilities for students through ISS supported teaching rooms
- Facilitated workshop on web strategy (Jan 13)
- Unite workshop on MOOCs (March 13)
- Optimisation of the internal web search mechanism (April 13)
- Reorganisation and relocation of the web team (April 13)
- Production of analytics and dashboards to assess the impact of the web (May 13)

In Progress

- Commencement of a plan for pervasive wifi - wifi survey (July 13), upgrading core network capacity (March 2015)
- Web strategy development
- Recruitment of a Digital Marketing Manager to ensure effective use of social media

Digital Literacy

Completed

- Think tank bringing together everyone involved in training across the University
- Creation of steering group to define the scope of the project
- Commissioning shared and agreed tools for assisting Digital Literacy
- Using Digital Story telling to improve communications (Registrar’s project)

In Progress

- Production of a draft strategy (July 13)
- Organisation of an event to show case and promote Digital Literacy across Campus (November 2013)
Implementation of the recommendations from the KPMG report

Completed
• Governance - Steering Group and terms of reference in place from May 2012
• Programme plan finalised and published
• Workshops held with students and staff (30 in total)
• IT service management system procured
• Firewall replacement procured
• Exercise to procure PCs across Faculties and Central Services - both green and saving money
• Campus wide digital security training
• Student e-mail moved from in-house to the cloud (Office 365)

In Progress
• Draft IT Strategy (attached)
• Core network upgrade
• NUIT discovery work with Computing Staff and School/Unit Managers due to complete July 13
• Implementation of Service management system (phase one May 13 and phase two September 13)
• Consolidation of infrastructure discovery work nearing completion (July 13)
• IT Account and Identity Management Platform project (October 14)
• Library photocopying project
• Shadow NUIT in the Schools of History and Law
• ISS outreach to build confidence in academic units

The Newcastle University draft strategy follows this paper. It is the first University-wide IT strategy and whilst it addresses some key issues for the future and what we want to achieve, its full expression awaits some of the developments listed above.
1. **Strategic IT Principles to Support a World-Class Civic University**

The Strategic IT principles to deliver the University’s Vision and Mission are:

- **IT that enables innovation and collaboration for Research and Learning and Teaching**
  - Underpin learning, teaching and research
  - Using current and emerging technologies
  - Remove technology barriers
  - Responsive to new academic models
  - Consistent with specific needs of different disciplines

- **Customer-orientated technology focussed on staff and student needs**
  - Focus on staff and student needs rather than technology
  - Accessible, whoever and wherever you are
  - Easy to use

- **Common, University wide services that are professionally delivered, dependable and secure**
  - Use of IT to improve academic and administrative processes
  - Consistent high quality service delivery and availability
  - Removal of duplication and waste in support of the sustainability objective
  - Trusted data stewardship and integrity of data and networks
  - Investigating shared services

The strategic principles will be underpinned by NUIT providing leadership and management of professional skill sets, with vision and delivery of our enterprise, systems and infrastructure and information architecture.
2. Introduction

This strategy for IT delivery across Newcastle University has its origins in a KPMG value for money review that reported in Autumn 2011 and the “think tank” on Digital Campus strategy led by the Vice Chancellor in March 2012. The document follows extensive consultation with staff and students. All University staff and students were invited to attend one of 30 workshops held over the latter part of 2012. In total, 550 staff and students attended. In parallel, Pro-Vice-Chancellors, the Registrar’s Senior Officers Group and all Heads of Academic Units and the Professional Support Services were consulted on their future vision for IT.

The strategy cannot be future proof as we will continue to see unprecedented change in communication and information technologies. These have transformed the way we operate and communicate and, if carefully exploited, will continue to transform the way the University conducts its work and competes in the market. The University’s reliance on information systems will increase over the period of this strategy as our operating environment becomes more complex and competitive. We therefore need to provide an evolving and flexible service and build confidence in IT strategy, delivery, and security.

The IT Strategy sets the direction of travel from 2013 to 2015. Implementation will be managed through a set of inter-related programmes and projects that will evolve over time. The programmes and projects below reflect the major IT priorities that the University wishes particularly to deliver in the short to medium term:

a) Strategies for Research Computing (including turning Big Data into Big Knowledge), e-Learning and Web Vision will need to be developed
b) Pervasive wifi in Halls of Residence and on Campus – to meet the needs of students and staff with multiple devices
c) Raise the Digital Literacy of staff and students
d) Develop a high level vision and architecture for University Business Systems and appoint an Enterprise Architect
e) Gain consensus to a systems architecture around the University and communicate it
f) Develop a strategy for shared data-centres and possibly SAP support
g) Develop a strategy to migrate to a single point of truth for data
h) Provide a common University infrastructure
i) A NUIT organizational model. Transition University wide IT staff to an NUIT reporting line and ensure delivery of a customer-centred focus
3. Newcastle University IT Vision

**Vision:** Provision of innovative and excellent IT services to the University which supports our global reputation for academic excellence.

Our mission is to provide leadership, expertise and support that empowers the University community to exploit technology and information in support of its research, teaching, learning, enterprise and business processes whilst promoting the reputation and quality of the University.

We will invest strategically in IT where it delivers academic benefits or business efficiencies.
4. **How IT Strategic Principles support Vision 2021 Objectives**

The three strategic themes underpin all five of the University’s strategic objectives;

- To be in the top 20 in the UK for research
- To be in the top 20 in the UK for student satisfaction
- Focus on three Societal Challenge Themes: Ageing; Social Renewal; Sustainability
- A significant international, national and regional profile and reputation
- Financial and environmental sustainability

5. **The Direction for IT Service Delivery**

<table>
<thead>
<tr>
<th>Strategic IT Principle</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. IT that enables innovation and collaboration for Research and Teaching and Learning</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Underpin learning, teaching and research | • Run one core virtual learning environment.  
• Develop research IT support to assist collaboration, data storage and curation, and for some high end users (e.g. synthetic biology) the infrastructure required to deal with extremely large volumes of data  
• Develop a consistent approach for High Performance Computing |
| Using current and emerging technologies | • Better integrate user-owned devices with core IT services  
• Seamless integration of brokered external services, shared services and cloud into service delivery |
| Remove technology barriers | • Develop and communicate a coherent enterprise architecture  
• My device, my place, my way! |
| Responsive to new academic models | • Support the creation of a consistent long-term E-Learning vision including a range of enabling services for distance learning  
• Support short-course provision, different programme timings and blended and distance learning  
• Support new and emerging academic models of operation (e.g. Joint ventures and new countries of operation) |
| Dependencies | • An E-learning and distance learning strategy (to be developed)  
• A Research computing strategy (to be developed)  
• A Digital Literacy strategy (to be developed) |
| **2. Customer-orientated technology focussed on staff and student needs** | |
| Easy to use and focussed on needs | • Move towards standard desktop provision, management and configuration  
• On line enablement of all processes  
• Everyone is able to securely access IT services from anywhere  
• Actively engage with the student body to meet the IT requirements of students |
| Accessible, whoever and wherever you are | • Provide an effective website to promote the University’s digital footprint to all internal and external stakeholders  
• Provide a toolkit of services for smart-working including remote, distance and home working  
• Provide the Newcastle Experience across all University campuses  
• Pervasive Wi-Fi provision |
|---|---|
| **3. Common, University wide services that are professionally delivered, dependable and secure** | **Consistent high-quality service delivery**  
• Base processes on current University best practice and external best practice where relevant  
• Level up IT service delivery  
• Use KPIs to monitor IT service reliability and availability  
• Support proper requirements analysis at service initiation stage  
• Provide project management to support benefits realisation |
| | **Trusted data stewardship and integrity of systems and networks**  
• Provide secure storage for research data, free at the point of use for all but the largest  
• Prove to funders that we can be trusted with their data  
• Agree clear data ownership and responsibilities  
• Hold data once wherever possible  
• Implement data archiving policy from service inception  
• Provide a secure IT environment  
• Service owners agree a Disaster Recovery/Service Continuity plan, including test plan and recovery times |
| | **Removal of duplication and waste**  
• Deliver value for money  
• Procure IT efficiently and in line with Green considerations  
• Rationalise IT hardware  
• Rationalise IT business systems through the appointment of an Enterprise Architect to analyse University needs and develop a high level vision of our Business Systems  
• Make standard PCs available to the user free at the point of use. Macs, and Linux and other workstations are available where there is a genuine need  
• Consistent standards for systems development, project management, governance, training, testing and communications |
| | **Shared services**  
• We will explore opportunities to improve value for money through sharing services for:  
  o Data security / resilience – i.e. data centre  
  o Desktop support  
  o IT procurement  
  o Service desk  
  o Data storage |
| | **All IT professionals brought together under NUIT**  
• Review current University-wide IT service delivery  
• Design NUIT structure to meet current and future staff and student needs  
• Manage centrally, deliver locally  
• All University web professionals working in a coordinated approach (inside or outside of NUIT)  
• All University IT training staff working together in a coordinated approach (inside or outside of NUIT) |