Every member of UCL will have a digital experience which meets all their needs simply and efficiently, enabling UCL’s research, learning and teaching activities to flourish and be world leading in a rapidly evolving digital world.
Digital technology is essential for world leading research and forms a key ingredient of a modern learning environment. Today’s digitally enabled students expect technology to be used effectively to support their learning. Technology can also be an engine of efficiency, helping to deliver improved financial outcomes. Effective digital infrastructure will also underpin our ability to deliver against UCL 2034.

This 5-year Digital Masterplan describes the actions and investments needed to achieve these goals.

Whilst the need to invest in our physical estate is widely acknowledged, the need also to invest in our digital estate is perhaps less understood. For UCL to continue to be successful we need a high quality, highly performant digital estate that is updated and refreshed to keep up with the needs of our researchers and students.

Meeting the needs of the UCL community, including staff, students, researchers and visitors, is our number one priority.

Our Vision

Our vision is for every member of UCL to have a digital experience that meets their needs simply and efficiently, enabling UCL’s research, learning and teaching activities to flourish and be world leading in a rapidly evolving digital world.

To enable UCL to realise this vision by 2021, we’ve developed six interrelated objectives:

- **Objective 1**
  Provide a world leading student digital experience to enable teaching and learning to flourish.

- **Objective 2**
  Provide world-leading research IT capabilities to enable UCL’s researchers to find new answers to the hardest questions.

- **Objective 3**
  Provide the universe of UCL knowledge and functionality seamlessly to students and staff through a transformed Digital Experience.

- **Objective 4**
  Manage our activities through functionally rich and easy to use administrative processes and rich management information.

- **Objective 5**
  Provide a strong, stable and sustainable base through transformed IT infrastructure.

- **Objective 6**
  Deliver a high-performance and customer centric culture with efficient processes and effective services.

In the following pages we provide more information about each of these objectives.
UCL 2034 sets out a vision for UCL to become “A global leader in the integration of research and education, underpinning an inspirational student experience” and the Education Strategy seeks to establish UCL as a blended campus in which technology supports authentic, creative and collaborative learning, enables a wide range of assessment approaches, augments face-to-face contact and encourages productive learning outside of the classroom.

However, over the last few years we have slipped down the National Student Survey league table so not only do we have great aspirations in education but also some catching up to do.

An outstanding student experience, in all its breadth, can only be achieved when we harness the power of technology to foster collaboration and enhance our teaching.

1.1 Getting the basics right – improving the student digital experience

We will prioritise improving the student digital experience, providing a quality technology-rich blended environment for student study. The student digital experience encompasses the physical infrastructure for student study (WiFi, classroom AV, Lecturecast and student computers), virtual learning environments, and the support provided for students’ skills development.

We have seen considerable growth in our student facing services in recent years. WiFi usage has increased 375% in four years and Lecturecast recordings have increased over three-fold in the last 12 months.

Under the Digital Masterplan we have:

Invested over £2.5m in new and improved AV in our teaching spaces across campus so far. While this has certainly made a big difference, the scale of UCL means there is still work to do.

Added an extra 600 student computers over the last year despite the space challenges which has made up half the gap between UCL and the Russell Group average. This is good progress but we must still strive to at least achieve the Russell Group average.

Recently, we’ve introduced new learning space availability technology that will show students where to find available study space using the library website or their mobile device.

Under the Digital Masterplan we will:

Continue to invest in laptop loans by providing an extra 100 each year. With laptop loans students are able to borrow a laptop which can be used in whatever space is available.

Provide our digitally connected students and staff with high-capacity and pervasive WiFi. We will address those areas with no or patchy coverage and provide substantially increased capacity.

Provide an integrated student service centre. This unified physical and online presence will bring together all the services students use such as Registry, Welfare, Library, IT and Residences, so that any problem can be resolved efficiently and effectively.
1.2 Digital Education – connected learning

Under connected learning we aim to support UCL’s ambitious Connected Curriculum and related initiatives. We’ll establish a distinctive digital education environment to connect students with each other, with staff, with research and with the outside world to support networked, research-based and interdisciplinary education.

Under the Digital Masterplan we will:

Review the VLE (Moodle) against our requirements and against the VLE market to ensure that it continues to meet institutional needs. We will seek to enhance the VLE and augment it with new communication, collaboration, research and productivity tools to provide a rich environment for connected learning, including a new blogging environment for students.

Enable staff and students to exploit the potential of data about learning through a learning analytics service.

Deliver a new ‘student success platform’ which will ensure personal tutors are able to access the data needed to effectively support their tutees.

1.3 Digital Education – open and life learning

We need to develop our capability to support Open and Life Learning to enable UCL to benefit from the opportunities new technology now offers. Open and Life Learning includes open learning resources that are free to use such as MOOCs and facilities to support Continuous Professional Development and life-long learning.

Under the Digital Masterplan we have:

Introduced the UCLeXtend platform to support UCL’s Open and Life Learning initiatives.

Under the Digital Masterplan we will:

Develop our open educational presence, establishing an open educational resources (OER) repository to share and showcase our educational outputs.

Ensure continued support and development of the UCLeXtend platform, prioritising the needs of the Life Learning initiative, but also seeking to explore and develop UCLeXtend for other externally-facing activities.

Develop a ‘course administration solution’ to support Life Learning courses. We will seek to support those involved in development of fully online programmes and MOOCs.

1.4 Empower staff to meet student’s digital expectations

The Education Strategy commits us to providing improved tools, support and infrastructure for teaching and support staff to help them to develop their own digital scholarship and guide them in designing curricula for blended learning.

Under the Digital Masterplan we have:

Introduced the E-Learning Baseline policy for 2017/18 and in 2018/19 all modules will be reviewed for compliance with this in Moodle.

Established the effective and popular Arena Blended Connected (ABC) ‘rapid design’ workshops for designing blended and fully online programmes.

Under the Digital Masterplan we will:

Provide additional advice and support in the use of learning and media technology and by supporting staff to develop their own digital skills.

Support the creation and use of media in teaching but this will depend on identifying a suitable location for a media suite (small recording studio plus audio-editing booths).
Provide world-leading research IT capabilities

With the ambition set out in UCL 2034 to be in the top two REF performers, UCL needs to provide world-leading research IT services to our researchers as research continues to be increasingly dependent on computational methods and data processing.

It is estimated that 30% of UCL’s research activity is already dependent on effective research IT facilities, a figure that can only increase. Our recent investments in High Performance Computing (HPC) have propelled us to the number 1 spot in UK University HPC provision in 2016 but we’ll need to continue to invest to maintain world leading HPC services.

Besides HPC and research data storage facilities, researchers are increasingly looking to ISD to provide expert help in research software development. We are currently UK-leading in this area but need to grow this capability to ensure we remain able to provide researchers with innovative and relevant services to meet demand in this area.

We aim to maintain, enhance and better integrate infrastructure to offer our researchers improved collaboration tools and innovative services. We will develop services to enable researchers to harness data to generate new information, knowledge and wisdom, while supporting the institution’s financial sustainability objective.

2.1 Supporting data-driven science and open science

With its disciplinary breadth and range of partnerships, UCL researchers work in an increasingly data-rich environment, offering new research horizons. Across the Faculties, researchers are facing new methodological and technology challenges in responding to these opportunities. The desire to deliver broader societal benefits from this data have contributed to the rise of the ‘Open Science’ agenda, championed by the European Commission, supported by UK funders, and now a theme within UCL’s Research Strategy.

Under the Digital Masterplan we have:

Worked with the UCL Centre for Data Science to develop a Data Science consultant role, based on our mature Research Software Development function.

Under the Digital Masterplan we will:

Support our researchers in deriving maximum value from UCL’s wealth of research data assets by investing in tools for data ‘search and discover’, big-data visualisation, manipulation and analysis as well as large-scale managed storage.

Roll out a full data-science consultancy service, providing UCL with an efficient means through which researchers are able to fully exploit the data landscape.

Enable long term access to and preservation of research data and to comply with funder policy by implementing a Research Data Repository service to provide secure long-term storage facilities that will aid sharing between UCL researchers and their collaborators.

Continue to support UCL’s continued leadership in Open Access and place UCL at the forefront of Open Science – a key Horizon2020 theme, through our partnership with Library Services.
2.2 Creating and maintaining world-leading computational and data storage facilities

We need to ensure our High-Performance Computing (HPC) and research data storage facilities are kept up to date, grown in-line with UCL’s needs and regularly refreshed to continue to meet researcher’s needs. This requires continuous investment as existing technology becomes obsolete, new capability emerges and demand from UCL researchers increases. This will ensure UCL researchers are able to benefit from new technology and timely access to resources to reduce ‘time-to-science’, while at the same time ensuring that operating costs are continually driven down.

As part of this, ISD will meld together services at the national, regional and discipline specific level as well as new commercial cloud offerings to provide an easy to use one-stop shop for researchers. This will ensure UCL researchers have access to the right platform at the right time.

Researchers will be able to draw on the open standards we will continue to adopt and promote, and the interfaces we will develop, to facilitate the seamless integration of UCL’s research IT facilities and ready access to external resources.

**Under the Digital Masterplan we have:**

Provided large increases in HPC capacity with the extension of the Grace HPC platform and the new EPSRC funded collaborative materials research facility that is hosted by UCL.

Further expanded our research software development group and developed a scalable model of delivery aimed at meeting the large amount of currently unmet demand in an agile responsive manner.

Trebled the amount of research data storage available.

**Under the Digital Masterplan we will:**

Continue to invest in HPC and data storage to ensure we maintain facilities at the highest level.

Continue to develop UCL’s position as a partner of choice for large-scale collaborative projects to develop shared infrastructure services.

Through alignment with the new eResearch domain we will ensure that we are poised to absorb new equipment funding and underpin strategic initiatives such as the Alan Turing Institute.

Use data from the new PAGS system (see below) to implement robust capacity planning for our infrastructure based services so that new capacity is available to researchers when they need it.

2.3 Promoting world-class research through IT education

UCL 2034 seeks to integrate research and education to underpin an outstanding student experience and provide our students with the skills they need to be the leaders of the future. Technology has a key role in supporting this.

**Under the Digital Masterplan we have:**

Collaborated with Digital Education to develop self-directed, online versions of our most popular Research IT training courses, to be made available through Moodle.

**Under the Digital Masterplan we will:**

Partner with the eResearch domain and UCL’s Centres for Doctoral Training to develop a comprehensive shared curriculum in computational and data-intensive research methods, where our students benefit from hands-on experience.

Capitalise on our locality by creating a London hub for innovation in digitally-based research, seeking to make UCL the University of choice for early career researchers focused on this growing area.

Create ‘Teaching and Training areas’ for our HPC and research data storage platforms.
2.4 Managing research from Opportunity to Impact

We are a research business with a £500m annual turnover but without the tools required to effectively manage such a large endeavour. We need easy to use tools and applications for key research management activities including grant application preparation. These tools need to link together over the whole research life-cycle from opportunity to impact to provide the information needed to manage such a large research enterprise:

“Our aspiration is to have agile processes that are simple to use and deliver the right results first time; that are efficient and effective; and that limit the burdens of administration on our staff. In a large, complex, devolved institution with many stakeholders, this is a challenging set of aspirations.”

Under the Digital Masterplan we have:

Used the Worktribe SaaS\(^1\) system to develop the new Pre-Award Grant System (PAGS). Initially this replaces the old PFact\(^2\) system to provide a modern web based grant costing tool.

Recently extended PAGS to include post-award functionality and developed an interface into MyFinance.

Under the Digital Masterplan we will:

Extend PAGS in the next phase to include modules for research contract management and research opportunity management. Over time PAGS will become UCL’s comprehensive research life-cycle management application.

Use UCL’s new Integrated Data Warehouse (IDW) to provide new research planning and forecasting tools for a range of stakeholders including from Faculty staff, Research Services, to PIs and OVPR.

Develop tools to support UCL’s REF2020 submission. This will include a suite of applications to capture and showcase the diversity and impact of UCL’s research excellence.

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\(^1\)SaaS – ‘Software as a service’, software operated in the Cloud and accessed remotely from UCL using a web browser

\(^2\)PFact – Project Financial Appraisal and Costing Tool
At a time when the world is becoming increasingly dependent on digital services, the digital experience at UCL remains fragmented and frustrating. This is reflected in the recent National Student Survey and Student Barometer results.

Our staff struggle with fractured and disjointed processes that hinder their effectiveness and sap their time. In effect our staff and students are acting as the digital glue for processes and services which should have been digitally joined in the first place.

Our students have been digitally connected almost from birth and alongside our staff now represent a significant group of connected consumers whose reliance on technology and expectations are perhaps greater than we appreciate.

This digital fragmentation cannot be repaired within the functional or departmental silos. A cross-cutting institution-wide programme of digital transformation is needed to meet the needs of applicants, current students and staff.

In short, we need to deliver high quality digitally-enabled and joined up services and processes that ‘just work’ for the organisation and this Digital Masterplan proposes addressing this through three key initiatives. These will be led by a broad group of senior academic staff, student representatives and professional services staff to ensure it is user-focused and truly institution wide.

3.1 A digitally integrated world

By putting users first and understanding regular information and task requirements we will be able to streamline user journeys, improve structure, improve content and optimise the user experience.

Where it makes sense for users, we will make available functions and processes on their own personal devices such as laptops, tablets and phones.

Under the Digital Masterplan we will:

- Develop a new digital skin known as UCL Connect to provide a unified and easy to use Amazon-like interface for the administrative tasks and activities our staff and students undertake on a day to day basis. No longer will staff and students need to use the sometimes clunky and varied interfaces of our underlying core systems, such as Finance, HR and Estates. UCL Connect and the digital skin will insulate them from this and will be a key enabler for TOPS3.

3TOPS – Transforming our Professional Services programme aimed at improving service quality, providing better career paths for our professional services staff and increasing efficiency.
3.2 World class external web presence to market ourselves and attract the best students

As part of the Digital Masterplan we will ensure content is easily accessible and establish institution wide standards. We will ensure high quality delivery to the user’s device of choice.

**Under the Digital Masterplan we have:**

Implemented the new Drupal content management system and migrated the first tranche of websites over to the new platform. These include the student recruitment site, Brain Sciences and The Bartlett.

**Under the Digital Masterplan we will:**

Complete the migration of UCL’s over 1,000 websites to the new Drupal platform.

Revitalise and refresh UCL’s student and staff mobile platform known as UCL Go.

Improve how we market our range of programmes, both degree based and those linked to Life Learning using digital channels.

Provide an integrated and high-quality web presence that overcomes the current somewhat fragmented offering. This will improve engagement with prospective students throughout their journey from enquiry to application, to offer and finally to course enrolment.

3.3 An integrated internal UCL Intranet

An Intranet is a website used within an organisation to enable staff to easily access the information, guidance and advice they need. At UCL historically we have not had an Intranet, just an outward facing Internet website that has also been used by staff as a proxy for an Intranet. Going forward we’ll develop a comprehensive Intranet starting with the integration of the existing Professional Services websites into an integrated professional services website. This will be the one-stop shop for information about administrative services, such as finance and HR, at UCL.

3.4 Promoting our research and facilitating collaboration

UCL 2034 seeks to leverage our scale and range of disciplines to facilitate cross disciplinary research that will push forwards the boundaries of knowledge and this Masterplan seeks to support that.

**Under the Digital Masterplan we will:**

Transform the Research IT digital web presence to ensure our research power is effectively promoted to our wide range of stakeholders and key influencers. Search capabilities will ensure easy and rapid access to research information.

Introduce new digital identity capabilities will make inter-working with collaborators at other institutions seamless.
Effective and efficient core administrative systems will underpin our key operational and administrative processes at UCL. Our legacy systems are a major strain on the organisation, undermining the student experience and soaking up too much of the organisation's capacity with broken and manual processes. We need modern and easy to use core systems. Alongside this we will build on the successful initial release of UCL's new management information platform that will enable a more evidence led approach to decision making.

4.1 Transform administrative systems, processes and experience

Our core administrative systems have had little investment historically and have become a major strain on the organisation and, for instance, we need to transform Portico, our student administration platform. Increased automation and optimisation will enable us to squeeze even more utilisation out of our constrained teaching spaces and, importantly, we will be able to respond to changing circumstances in an agile manner.

As with other systems, our administrative applications need to be accessible to all our users and support equality and diversity objectives. We will seek to achieve this through the Digital Masterplan.

Under the Digital Masterplan we have:
- Delivered the new MySupporters system in 2016, a key enabler for our new fundraising campaign.
- Delivered the upgrade to MyFinance to place it on the latest platform in readiness for the new MyHR system.
- Recently completed a review and simplification of the academic model which will underpin a transformation in Portico.

Under the Digital masterplan we will:
- Complete the implementation of the new MyHR system. Development is now well progressed although its success will depend on our willingness to streamline operating models and associated processes in the light of TOPS.
- Implement an Innovation and Enterprise ledger that will enable better tracking and reporting of this important area of activity at UCL.

We will invest in student information systems to transform Portico to meet the needs of the university. This will be a complete redevelopment of the system to cast off the baggage of the past and provide a fit for purpose student administration system that meets the needs of today’s UCL.

Replace the suite of Estate systems including the functionality provided by FAMIS and CMIS, with modern technology providing rich functionality, full integration with other systems and ease of use.
4.2 Arming decision-makers with information and insight

Effective management information will be key to effective management of the institution going forward and essential for the evidence led and data informed decision making that we aspire to. Timely access to information will provide early warning of issues and enable early corrective action to be taken rather than it becoming a surprise later.

For the user, a range of advanced analytics and business intelligence capabilities will provide on-line access to standard reports as well as easy access to ad-hoc reporting and drill down. Batch reports will be run overnight to provide standard reports of record though a portal and via email.

Integrated management information will also help with the provision of an ‘information asset register for personal data’ for GDPR compliance.

Under the Digital Masterplan we have:

Developed the initial release of the new management information platform for UCL underpinned by a new Integrated Data-Warehouse (IDW) and using the industry leading Tableau visualisation tool to present data effectively to users. The new platform provides a capability UCL has never possessed in the past. The initial release, known as Wave #1, includes admissions data and this will soon be extended to PAGS grant application data.

Under the Digital masterplan we will:

Develop the new data warehouse to provide a true enterprise-wide near real-time management information facility that joins up data from a wide range of functional areas including HR, Finance, Student Information, Estates and Research to provide rich insights through advanced analytics and business intelligence technologies. This will provide the information needed for informed and insightful decisions about the ongoing management of the organisation.

Broaden the system to introduce new datasets including publicly available competitor information and research council awards. This would enable competitor information to be manipulated using business intelligence tools to support benchmarking of key activities.

Seek to automate many aspects of the HESA return using the new IDW and so reduce the significant manual effort that is required each year to prepare the return.
IT infrastructure includes datacentres, networks, servers, storage, PCs, printing and our service desk. Without such infrastructure the university could not operate and is also an important enabler of UCL 2034.

Our digital infrastructure is challenged by historic under investment and by the increased load that comes from the continued growth in the institution. This growth is exemplified by the use of our WiFi network in the central campus area which is up from 4,000 concurrent devices in 2011 to a new record high of over 28,000 in October 2017. This represents a 38% compound annual growth rate over those six years.

Standardisation, simplification and automation need to be key mantra for effective and efficient infrastructure. Without this our infrastructure become an increasing burden on the organisation that is inherently less reliable and difficult to maintain.

Substantial investment will be needed to bring our infrastructure up to a modern standard but even when this is complete we’ll need to continue to invest to avoid falling back.

Historically provision of infrastructure and other elements of IT has been federated with services provide by individual departments as well as the centre. This has led to patchy coverage as some departments have invested but others not. The customer experience is often not seamless due to different approaches and standards. Going forward the core IT infrastructure across UCL needs to be standardised with ubiquitous and high-quality services available for all.

UCL’s activities are already dispersed over a number of sites. We have a sizeable presence at the Olympic Park and this will increase substantially as UCL East is developed. Besides the Olympic Park UCL has many remote sites including the Royal Free, Whittington, Stanmore, Clare Hall, Chalfont St Peters, Dorking and more recently Canary Wharf. As we move forward, it will be important to ensure that our customers enjoy the same high-quality services irrespective of location and this will make reliability more important and mean more remote diagnosis and management capabilities.

5.1 Effective Information Security protecting against today’s threats and preparing for tomorrow’s

Effective Information Security is a critical consideration and we’re ensuring effective information security is a part of the design stage for all projects. Besides providing effective information security technology, we also need ensure our students and staff are fully equipped to face an ever-growing array of threats in a connected world. They have a central role to play in ensuring themselves and UCL are effectively protected. To complement this, we have established a comprehensive information risk management framework to ensure UCL’s information assets are effectively managed.

There is an ever-growing need to provide security assurance to external bodies (NHS Digital, NIH etc) about our use of highly sensitive data in research. This will require further development of the Data Safe Haven to extend its capabilities while also maintaining full compliance with some of the most stringent information security standards including ISO27001:2013 and NHS Digital’s IG Toolkit.

UCL are UK leaders in the provision of secure research platforms and our advice is frequently sought by other universities.

Under the Digital Masterplan we have:

- Implemented more effective information risk governance processes and structures that reflect best practice and undertaken a broad information security awareness scheme.
- Information security training is now mandatory for all staff.
- Almost doubled the size of our Information Security team.
- Introduced new information security technology to address threats and identify attacks.

Under the Digital Masterplan we will:

- Achieve Cyber Essentials accreditation which is increasingly required by funders, especially those in the public sector.
- Enhance our information security technology and continue to place a strong focus on user education and awareness.

4 Cyber Essentials is a set of Information Security standards that the government expects all organisations to reach.
5.2 A unified and high-quality service desk

Under the Digital Masterplan, a single IT service desk will provide a single point of contact for staff and students enabling them to make the best use of the University’s services. A sophisticated knowledge base will enable the IT service desk analysts to support the University’s services to staff and students. A 360-degree view of the customer will ensure the service desk are able to provide joined-up immediate help to most requests.

**Under the Digital Masterplan we have:**
Brought together and integrated the IoE, Finance Systems and HR Systems service desks into the IT central service desk.
Developed the RemedyForce software which underpins our service desk operations to provide a rich self-service portal, user satisfaction surveys and an integrated service catalogue.

**Under the Digital Masterplan we will:**
Continue to enhance and extend to ensure staff and student queries are resolved effectively and quickly, including improved self service capabilities that will enable staff and students to request new or changed service when and how they wish to.

5.3 High quality desktop and print services

We will put the customer experience centre stage as we develop the next generation of our desktop@ucl and print@ucl services. Economies of scale, self-help and self-heal principles will be used to ensure the central UCL proposition is a competitive and preferred solution.

We will deliver an infrastructure that enables our users to enjoy the freedom they experience in everyday life with their own device while at UCL. Staff and students will be able to use their own devices to make routine tasks simpler and quicker. This will extend to payments, printing and location based services.

**Under the Digital Masterplan we have:**
Rolled out a new Windows 10 version of the student desktop over summer 17. Besides offering the latest Windows technology, this new version has been streamlined to make it faster, more reliable and more functional. A good example of continuous service improvement.
Introduced the first release of our new Mac support service to formalise, standardised and extend previous ad-hoc support arrangements.

**Under the Digital Masterplan we will:**
Rollout the new Windows 10 desktop to staff during term 2 FY 17/18 to provide them with a more modern and high-performance desktop environment.
Extend the Mac support service to create a Mac desktop support service which is comparable to our existing Windows desktop support service.
Going forwards we will introduce better support for Linux desktops.
Continue to develop and enhance the desktop systems to ensure staff and students have the tools they need.

5.4 Provide effective platform technologies

An historic ‘best of breed’ approach to application selection and the lack of a strategic approach to application integration have left UCL with many silo’d applications that don’t provide the institution with the most effective overall application suite. These many applications share information through interfaces of spaghetti like complexity that increase support costs and inhibit agility.

Going forward we will seek to reduce this complexity by taking a more strategic approach to application selection. Where possible we will reuse existing applications to meet new needs. We will implement an integration platform to minimise the number and complexity of interfaces between applications. This will enhance our ability to reuse existing interfaces for new purposes and provide swifter implementation timescales.
Under the Digital Masterplan we have:
Implemented a new Extract, Transform & Load (ETL) tool to standardise and simplify how we move large volumes of data between applications.
Implemented a new Application Programming Interface (API) platform to provide a standardised and easy to use way for applications to talk to each other to process transactions.

Under the Digital Masterplan we will:
Develop the new API platform to become the only way IT applications communicate with each other for transactional purposes. The interfaces developed through this platform will be reusable which will reduce complexity but also increase agility and shorten implementation timeframes.

5.5 Modernising through advanced technology
Through the implementation of modern advanced technology, we will address the fragility and capacity constraints in the current estate, improve customer service, increase agility and reduce unit costs.

Under the Digital Masterplan we will:
Improve automation that will minimise labour intensive business as usual activities and enable ISD to maximise the return on investment in infrastructure transformation programmes.
Establish mechanisms to allow integration of UCL’s own service delivery capabilities with those of external cloud vendors. This can provide additional scale to match immediate/short-term needs.
Introduce a new identity management system to replace existing complex and fragile systems that have been developed piece-meal over many years. An effective identity management system will underpin many other developments including the digital skin and improved information security plus this will be an essential ingredient for full GDPR compliance.

5.6 Modern and reliable datacentres, networks, compute and storage
Our new Bloomsbury datacentre is nearing completion and this together with our existing off-site datacentre will realise our strategy of two modern geographically separate datacentres that provide high levels of resilience and effective disaster recovery capability coupled with high levels of efficiency and flexibility. Scale and commoditisation will allow costs to be reduced and will underpin the full range of UCL services including offerings for departmental needs. The introduction of these two new datacentres will remove the need for local facilities within individual departments.

We will seek to simplify our data network wherever possible. A new software defined networking system will be implemented to increase reliability, enhance our agility and reduce the support burden.

Our compute and storage infrastructure has been refreshed as part of the move to the new datacentres and we will need to build on this to increase the agility of these services.

5.7 Decommissioning
All organisations accumulate old technology as their need for new and improved IT services adds new systems. Many of these new systems partially but not completely replace existing services meaning both the old and new need to be supported. If left unchecked, this continually increasing complexity leads to ever higher IT costs that become unaffordable. Therefore, a sustainable IT organisation must have an active programme to remove old technologies and reduce complexity to make way for the new systems and services the organisation requires.

Within the HS2 funded datacentre migration programme, good progress on decommissioning has been made but this will be a continuing need. To address this, we will fund the on-going decommissioning programme from a top-slice of the annual IT project fund.

Research image: Mrs Raquel Pinto
‘Excellent systems and processes in support of UCL’s vision’ is a key enabler for UCL 2034.

Through the transformation of internal processes and working practices ISD will become a more efficient and agile organisation. We will establish clear aims and objectives across the whole of our organisation. The adoption of industry standard processes will support effective problem management, capacity management, monitoring and alert management.

There are six key themes to our approach:

Customer focus
We will view all those who consume our services as customers. We will seek to understand their needs, resolve problems and introduce new services proactively. Our aim will be to ensure any customer problem or request is owned through to completion and we will proactively seek to meet customer needs from design right through to delivery.

Service focus
Our focus will be on the services we deliver to customers rather than just the technology. We will create empowered service ownership roles to ensure functional specialisms are balanced by a strong service orientation. Service owners will ensure their services are developed strategically to meet evolving customer needs and be responsible for effective operational performance. Service levels will be defined and measured.

Highly skilled, empowered and motivated staff
Well trained and motivated staff will be at the heart of delivering the Digital Masterplan.

Continuous improvement
Continuous improvement needs to become a way of life where every member of staff involved in the delivery of digital services continuously seeks to improve the services they deliver. In many case this will be small incremental changes that individually or collectively can dramatically improve service effectiveness or efficiency.

The importance of design
Elegant and thoughtful design is the key to a successful future. Without it, solutions become tactical, complex, expensive to maintain and unable to adapt to the changing needs of the university. Good design should not be swayed by the latest fashion but be driven by customer need and anticipate the future.

Seek standardisation and simplicity
We will seek standardisation and simplicity in all we do and only adding in complexity where the value to the institution warrants it. This is because simple and standardised solutions tend to be more reliable and more cost effective.
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