# Annual Report
## 2017/18

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**Brought to you by**

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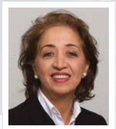


Dr Shirin Tahzib, Director of Software Solutions

Ian Wild, Director of Programme and Project Delivery

and over 300 colleagues across IT Services.

Photographs: John Cairns

# Welcome

Photograph: Peter Robinson

It is a pleasure for me to introduce this year's Annual Report for IT Services. Firstly, a big thank you to the previous CIO, Anne Trefethen, for her leadership in establishing IT Services on a coherent and broad footing, and I wish her well in her new Pro-Vice Chancellor role.

As is clear from the following pages, significant progress has been made in the last year across many areas of information technology – against a backdrop of ever growing demand for services, support and delivery of new capabilities.

Through the course of 2017/18, there have been several fundamental advances in our basic infrastructures – upgrading the data network, completing the rollout of our integrated telephony services (Chorus), and migrating almost all staff email boxes to the Nexus365 service. In addition, a number of our core administrative systems have had major version upgrades – X5, Tableau, DARS, Oracle R12 and Sage. New services have been introduced – the MARS service (a dashboard for research project management) and the HR Self Service capability. The Oxford Mosaic web platform continues to be adopted across the University, with almost 200 websites now migrated onto it.

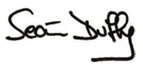
This year also saw the conclusion of several strategic direction initiatives, resulting in the selection of Canvas as the new institutional VLE (virtual learning environment); the decision to move the CoreHR system to a cloud service based in Ireland; and the commitment to migrate many data centre platforms to an external Jisc data centre in Slough, operated by VIRTUS. These will become major implementation programmes during the coming year.

Within IT Services, staff have continued to establish and build strong foundations for improving the effectiveness of our service and project delivery. The publication of technology standards (current, evolving and sunsetting) together with the ongoing architecture management processes will help ensure greater coherence and alignment across our various application and infrastructure platforms. (Staff) resource planning and the evolving data governance framework will help ensure predictable delivery of projects to meet the business requirements. We continue to evolve and support information security activities to protect institutional and personal data across the University. For staff, the 'Working Together' programme has sought to strengthen teamworking and collaboration within IT Services, with a range of workshops and events throughout the year. Innovation initiatives, too, have continued, with a range of great ideas and prototypes for new ICT-enabled capabilities.

Looking forward to the coming year, the immediate focus is on 'predictable delivery' – providing core services which are robust and resilient – and on delivering projects more effectively, with the proportionate levels of rigour and process. We will also look to strengthen our relations with the wider University – divisions, departments, colleges and halls – to support greater team-working, collaboration and information sharing, and to extend staff development for the wider IT function.

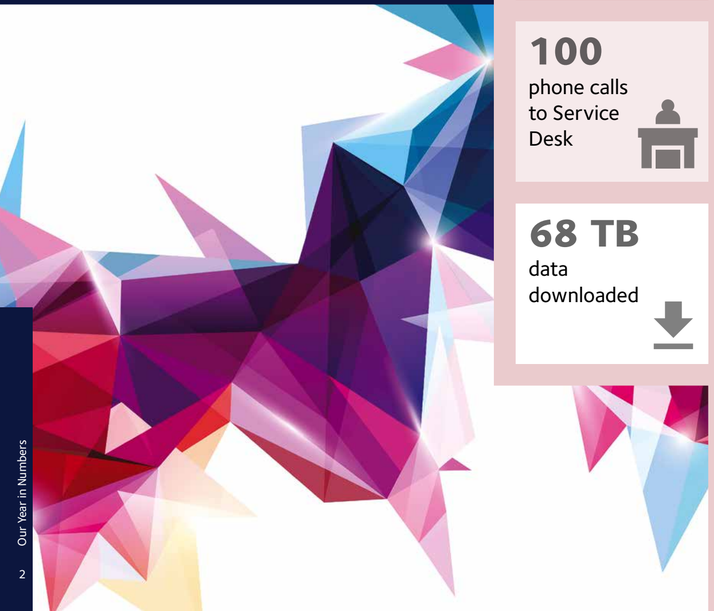
The process to produce a new IT Strategy started this summer, aligning with the new University Strategic Plan and focusing on how information technology can facilitate and support our strategic directions and ambitions.

We look forward to working with colleagues across the institution to develop our skills and services – to build an information technology capability in keeping with the needs of our world-leading University.



*Dr Seán Duffy, Chief Information Officer*

# Our Year in Numbers



*Daily averages during 2017/18*

## A Day in the Life

**420,000** incoming emails delivered

**514,000** spam emails rejected

**100** phone calls to Service Desk

**28,000** phone calls made and received

**68 TB** data downloaded

**4** security incidents responded to

**10,000** visitors to Oxford Mosaic websites

## 2017/18

**79** active projects

**64** services offered

**13,783** hours of Lynda.com video watched

**210** events recorded by the media team

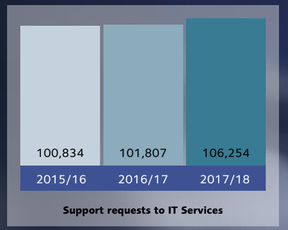
**44** projects completed

**724** IT Learning Centre courses delivered

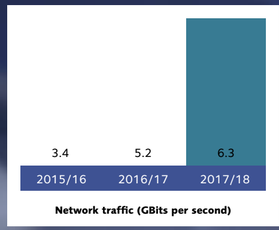
**108** client sites created on Oxford Mosaic

**30** events and conferences broadcast live

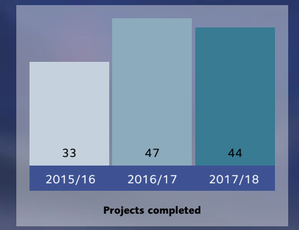
## The Past Three Years



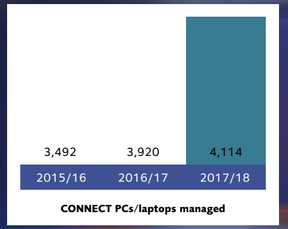

**Support requests to IT Services**



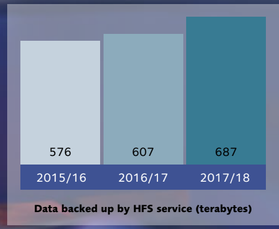

**Network traffic (GBits per second)**



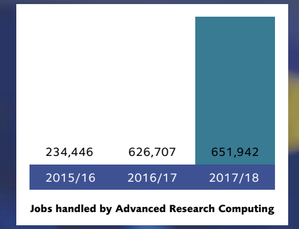

**Projects completed**



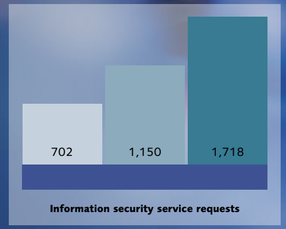

**CONNECT PCs/laptops managed**



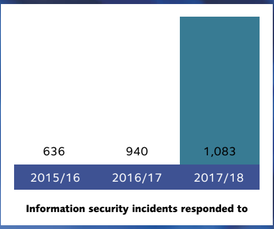

**Data backed up by HFS service (terabytes)**




**Jobs handled by Advanced Research Computing**




**Information security service requests**




**Information security incidents responded to**

# Research

Our services to researchers range from the delivery and support of high performance computing services through to administrative systems that support the research lifecycle.

We help researchers in several different ways: advanced research computing, research support, and supporting administrative systems such as X5 and the new MARS system. We also work with colleagues across the University including the Bodleian Libraries, Research Services and divisions.

This year, we took a leading role in a new initiative to build strategically on and develop the current research computing services and expertise at the University.

## Highlights this year

### New Research Computing Board

- A federated support structure for research computing at the University. It includes senior researchers from across the University.
- The aim is to coordinate investment into physical infrastructure, champion more transparent and easier access to these systems, and improve access to resources by departments and divisions.

### Data visualisation services

- Research Support Services can help research groups use data visualisations to increase the reach of the original research and make it easier to communicate their outputs to funders and potential collaborators.
- This year, we set up a collaboration with the University of Sheffield to share knowledge and expertise. The aim is to increase skills and share approaches for the benefit of researchers at both institutions.

### Help for research administrators

- MARS is a new portal for research administrators with an at-a-glance overview of research projects, meaning less time searching through the source systems.
- The dashboard pulls in data from Oracle R12 (finance), X5 (costing and pricing) and CoreHR (project staff allocations).

### Research thesis digital submission

- Following a pilot last year, we made our new research thesis digital submission application available to all research degree students.
- Students now have a simple, safe and secure way to submit a digital copy of their research thesis and additional materials.

Photograph: Oxford University Images / Nasir Hamid

### Extreme business continuity: delivering an upgrade in spite of snow

In March this year, we battled the 'Beast from the East' to deliver a major upgrade to the University's research costing and pricing tool, X5. The upgrade was scheduled for 1/2 March, time was tight and postponement was not an option.

With a week's notice of the snow, contingency planning was activated for carrying out the work with the entire team working remotely – most in Oxfordshire and one in Wales.

The team from IT Services were used to connecting remotely so they knew they could work from home, logging in to the relevant servers and programs. The business team from Research Services had not done this before and had to be set up and the connections tested. It was all about preparation.

There were other issues to think about, too. Clear communication is key when following a step-by-step release implementation guide, so teams had to collaborate using Skype, email and conference calls to ensure everyone knew when they were needed.

The other problem was that remote working meant slower connections, so the work took longer than if it had been done on site, but the team worked late into the night to make it happen.

It was a great example of teamwork, with the Business Systems Support and Microsoft Platforms teams working hand-in-hand with Research Services and the supplier, Unit 4.

Over 900 research staff across numerous departments use X5, and their feedback was very good. This exercise has proved that we can pull together to deliver business continuity despite the best efforts of the British weather.

### Electronic lab notebooks: a new way to document lab records

Researchers and academics often use cutting-edge technology in their work, but when it comes to documenting their processes and findings the traditional tool is a very low-tech one – the lab notebook. These are literally paper notebooks, with information written or pasted into the pages. They are important records – vital, for example, in intellectual property disputes – but obviously vulnerable.

That is why the University is investing in electronic lab notebooks (ELNs) – digital alternatives to paper notebooks, used to create, share and preserve a high-quality record of research. The cloud-based ELN makes it easier to access and search data, and to exchange ideas: remote collaboration is an important benefit. And if there are patent applications and challenges, or publishing disputes, the ELN offers vital evidence that remains accessible many years later.

Our Research Technology Services team carried out two initial projects to establish demand and high-level requirements for ELNs, and then to shortlist ELN vendors by arranging demos and usage by researchers in the early adopters group.

This early adopters group is now working with ELNs from LabArchives for a two-year pilot project. Co-ordinating the use of ELNs centrally is a cost-effective way of making the technology available and avoids the risk of fragmenting the research record over time.

This move away from paper-based note taking in labs is a new way of working, but one that many researchers have been asking for, so we expect significant uptake across the University.

**651,942**

jobs completed by Advanced Research Computing (ARC) for Oxford researchers

Jobs run through the ARC system have expended

**24,652,495**

processor core hours – equivalent to a standard laptop working for over 1,000 years

# Education

IT Services provides services and projects to advance the University's capability in technology-enhanced teaching and learning, along with events to raise awareness of best practice.

Engagement in digital education continues to grow at Oxford, with a rolling programme of projects and activities underway to implement the University's Digital Education Strategy.

Alongside supporting academic staff and administrators with the development of blended courses, we have introduced new services and tools to improve students' access to online learning materials and activities. We also support academic staff in exploring and extending their teaching practices.

We continue to hold events and workshops to connect with the University community. In 2017/18, we built on the foundations laid the previous year to implement the University's Digital Education Strategy. Significantly, the virtual learning environment (VLE) review was completed and as a result a new intuitive digital platform has been selected for the University. We believe that this will allow the University to adopt the best teaching innovations that are made possible by digital technology.

## Highlights this year

### OxTALENT awards

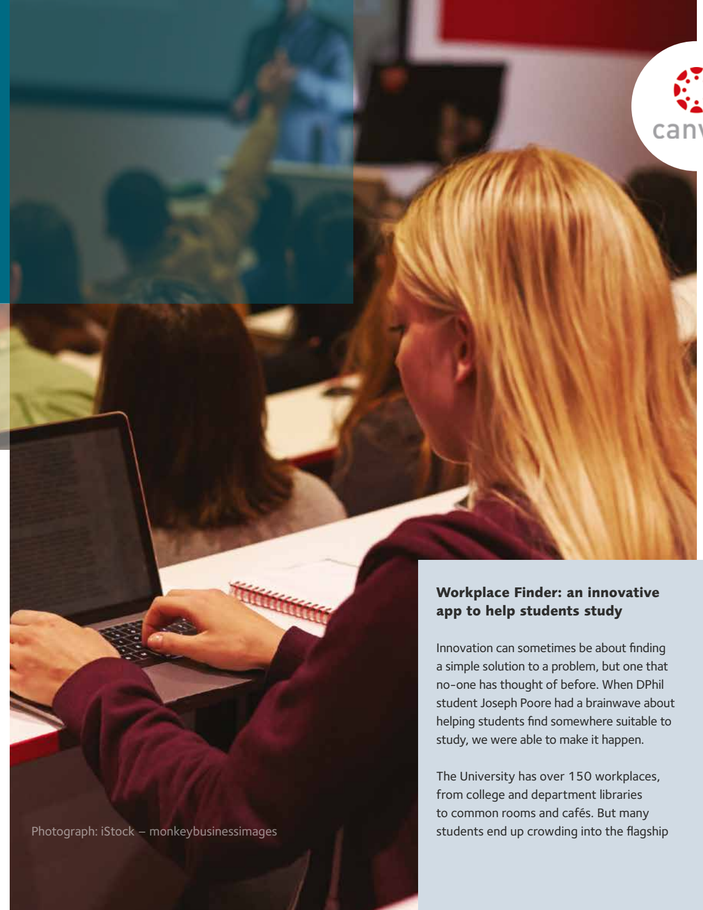
- Our annual awards celebrate the creativity and innovation of staff and students across the University in teaching, learning, research, outreach and public engagement.
- Inspiring examples this year came from numerous disciplines, from classics and English to executive education, health and science.

### E-exams trial

- The E-exams project trialled a system that allows students sitting timed, invigilated examinations to type, rather than handwrite, their responses.
- Around 70 students from three departments/faculties took part.
- It is expected that a follow-on project will be run during the 2018–19 academic year to investigate how e-exams can be used more widely.

### Looking ahead

- We launched an early adopter phase for Canvas in summer 2018. Evaluation from this will feed into the wider rollout, which we expect to start in summer 2019.
- WebLearn will continue as a teaching and learning platform until the end of the Canvas rollout (other WebLearn applications will be reviewed separately).
- A new service providing learning design workshops will help course teams to make the best use of technology when designing a new course or programme, or revising existing ones.



Photograph: iStock – monkeybusinessimages

### The Canvas@Oxford project: a new VLE for the University

One of the major themes to come out of the University's Digital Education Strategy consultation was the need for a virtual learning environment (VLE) that is more intuitive and user-friendly. A major project this year was to identify the right one for Oxford.

Following an extensive University-wide evaluation last year, we had a list of requirements to work from and were ready to assess what was available.

Our information gathering began by asking potential suppliers for a 'sandbox' (testing environment) so hands-on usability testing could be carried out by the people who would be actually using the new VLE: students, academics and administrative staff.

Based on this comparison, the Education IT Board approved the recommendation to look for a new VLE supplier and we were able to start a formal tender process. This time we asked for a detailed proposal covering everything from functionality and navigability to support and content migration.

The University has now chosen Canvas from Instructure as the new VLE for the University, a product with an excellent balance of functionality and user experience. A series of roadshows in Trinity term introduced Canvas to potential users, who said they were impressed by the intuitive dashboards and new features such as video feedback and calendar integration.

The project is about much more than replacing technology, though: it is a chance to re-think how the VLE is used to deliver teaching and learning. We hope that in the long term the new VLE will provide the structure and support for innovative teaching and learning across the University.

### Workplace Finder: an innovative app to help students study

Innovation can sometimes be about finding a simple solution to a problem, but one that no-one has thought of before. When DPhil student Joseph Poore had a brainwave about helping students find somewhere suitable to study, we were able to make it happen.

The University has over 150 workplaces, from college and department libraries to common rooms and cafés. But many students end up crowding into the flagship libraries or studying in their rooms, because they don't know what else is available.

This is where the Workplace Finder web app comes in. Joseph successfully pitched the idea to the University's IT Innovation Challenge (a central innovation fund administered by IT Services), and the app was then developed by the Web and Mobile Applications Development team in IT Services. They worked closely with Joseph to help him flesh out the idea, perform user research, come up with a design, and then deliver the application. Available for mobile or desktop, Workplace Finder is a comprehensive, searchable directory of University workplaces, tailored to each user. It will display potential workplaces depending on time, place and a user's college or department (based on Single Sign-On).

Results are displayed on a map which also shows which workplace is currently open, and can be filtered using search criteria such as opening hours, accessibility and noise level. It even shows details such as availability of electrical sockets, computers and printers, places where there is natural light, and whether you can have a coffee while you work.

**37**

departments using Replay lecture capture

Podcasts published this year...

**38** new series
**900** new episodes
**330** hours of audio
**280** hours of video
**580** different speakers

Watching all Oxford's video podcasts in one go would take you

**105**

days non-stop

# Enterprise Administrative Information Systems

IT Services works in partnership with the University's central administrative units to develop and support the University's business and information systems. We also carry out University-wide initiatives to improve the quality of information available to administrative and academic users to support their decision making.

Photographs: John Cairns

All business areas of the University use data, and how we use data effectively is becoming increasingly important to the University as a business. Business intelligence relies heavily on the confidence that our centrally held data can be understood and interpreted consistently wherever it is needed. Ongoing data governance projects have built momentum in this area, helping us to understand how our data sets fit together and how we can use this data safely and effectively.

This work has been enhanced by the appointment of our Enterprise IT Architect, a new role reviewing the data, applications and hardware that we use, and the way they might evolve. This will help us develop the technology landscape that supports how we want to do business in future.

Developments supporting the business this year include improved systems for key business processes along with moving more administrative tools online.

## Highlights this year

### Tableau V9 upgrade completed

- Tableau is a critical tool for analysing business data, with a wide user community across the University.
- It is used for data management, data visualisations and statutory reports, and is vital to analysing trends such as student statistics.
- This was a large project, completed after three years of work.

### Travel Insurance Application and Travel Registration (TIRS)

- TIRS is a new online portal for submitting and processing travel insurance applications and registering travel details, replacing paper forms.
- We carried out a pilot in early summer, with the service planned to roll out for Michaelmas 2018.

### Growth in use of Oxford Mosaic

- In total 195 websites across the University now use our website platform, including Research Services, Information Security and Digital Education. 108 new sites were created this year.
- Because the sites are hosted together on a shared platform, we were able to quickly patch them against a critical security vulnerability. It would have been impossible to do this for so many sites separately within the necessary timeframe.

### Oracle 12 upgrade

- The upgrade means that this key finance platform is now fully up-to-date and secure.
- We allocated four days to the upgrade roll-out, working over a weekend to minimise the business impact, but finished half a day ahead of schedule.

### Learning to love DARS

There are two sides to every story, and along with the benefits of major IT projects there is always the possibility of disruption and change, which can be daunting to users of a service.

The University's Development and Alumni Relations System (DARS) is one example. There are 500 active users across the University and we knew that some of them were likely to be nervous about a major upgrade. Yet the upgrade had to happen, and to a deadline: DARS v4 would be making changes to the settings for online donations and without the upgrade we would lose that critical functionality.

To make the transition as smooth as possible meant focusing very clearly on DARS users. We aimed to make the process fun, running informal sessions called 'TestFest' for our experienced and engaged Super Users – who were rewarded with 'Stars of DARS' T-shirts.

This early testing allowed us to identify any potential issues before user acceptance testing. We later ran 30-minute familiarisation sessions for the wider user community, to help alleviate any fears they might have had on go-live day.

With go-live scheduled for the week of Valentines' Day, the A in the DARS logo was replaced with a heart and incorporated into our final communications. We went live with minimal disruption, and more importantly an extremely quiet helpdesk.

Finally, we arranged a celebration evening for our Super Users, IT project and business teams to thank them for making the project a success – playing a key role in ensuring we continue to 'learn to love DARS'.

### Looking ahead

In response to user requests, we have a number of new Student Systems projects in the pipeline. These include the Student Progression project to replace 58 paper-based Graduate Studies Office forms and four undergraduate forms with an electronic approval/workflow process, part of a move within the University to adopt digital processes rather than paper-based ones.

### HR Self-Service: access your information online

University staff can now check their HR details online, thanks to new HR Self-Service functionality which allows them to access the information that the University holds about them.

This is particularly timely as the General Data Protection Regulations (GDPR) came into force in May this year. We are all used to getting 'resubscribe' emails mentioning GDPR but a more important aspect is the right to know what data an organisation holds about you and that it is up-to-date and accurate. One of the benefits of HR Self-Service is giving staff a secure, simple way to view the personal data that the University holds on them and to update some of it themselves.

Another advantage is the ability to view payslips online, as well as contract details and pay information. People expect this kind of convenience outside of work, as online shopping and banking become the norm, so now it's available at work too.

In this first phase, access to the new system is through the University network, but the second phase will make it available from anywhere with an internet connection, including mobile devices. Paper payslips will still be available until then, for the benefit of people who don't have access to an internet-enabled device at work.

Further developments will include a manager dashboard, allowing managers to view basic information about their team, and the ability to book leave and manage sickness absence online.

> "The HR Self-Service project was incredibly well-planned with involvement from across the University including Information Security, HR and faculty members. Being part of a project which will impact everyone who works at the University has been so rewarding."
>
> Dr Kate Blackmon, Project Sponsor, HR Self-Service

Third line software support for over

**100** applications / **26** services

# Infrastructure

IT infrastructure helps ensure that IT services offered across the University are secure, resilient and reliable.

The new staffing structure for Infrastructure Services has allowed us to consolidate our technical strategy, via a new Platform Services group, and improve our responsiveness to requests and incidents.

During the year we carried out a programme of hardware replacements or upgrades, and made improvements to identity and access management as well as to Nexus and Chorus. A major project has been the work on our new data centre facilities.

Many projects, like the Nexus365 migration, are much more complex than they might appear to the end user. Much of our work is behind the scenes, and largely unnoticed – which is how we want it to be. Our network switch upgrade, which involved staff starting work at 6am, was a good example of how we aim to minimise disruption when applying essential updates.

## Highlights this year

### Chorus project completed

- Our telephone service with new voicemail, mobile and conferencing facilities has now been rolled out across the University.
- We installed over 18,000 devices in more than 200 locations.

### Examination Schools upgrade

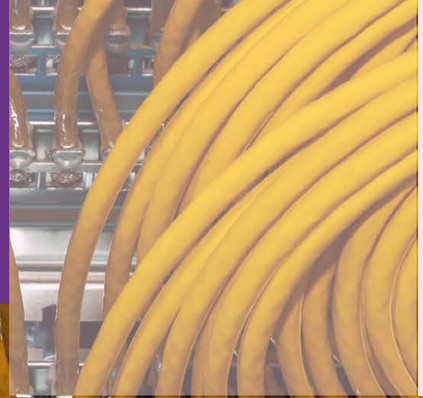
- We carried out the first phase of an upgrade to the wired and wireless networking in this Grade II listed, 19th century building.
- The next step is re-cabling of the building that will allow for a second phase of a wireless upgrade, planned for 2019.

### Network switch updates

- We updated all the 313 Frodo network switches that connect departments and colleges to the University network.
- The work was carried out early in the morning, with no noticeable disruption.

### Looking ahead

In the coming year we expect to release an improved data backup service, relocate the other half of our hardware estate to the Jisc–VIRTUS data centre in Slough, improve wireless networking services, and expand both managed network and 'cloud computing' services for the University.



### Nexus365: a collaborative migration

Nexus365 is the project to migrate our centrally managed email and calendaring to the cloud-based Microsoft Office 365 service. It sounds simple, until you realise that this involves 42,000 users and 60,000 mailboxes. When you also factor in shared mailboxes and delegated access – reflecting the network of relationships within the collegiate University – things become more complex.

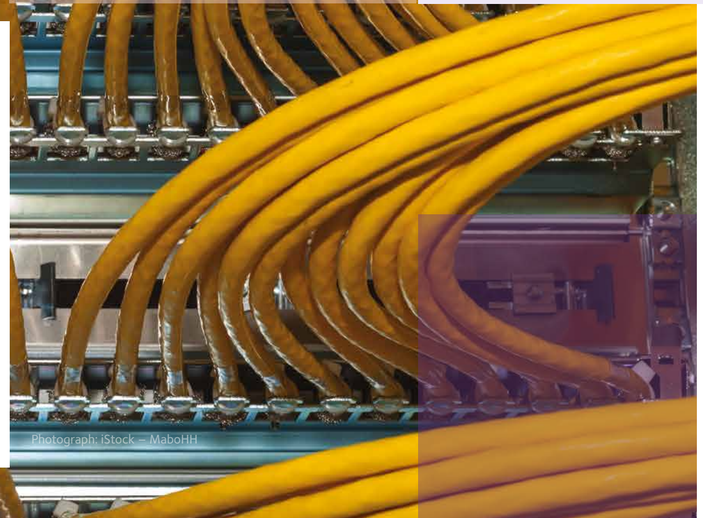
Then there's the issue of ensuring that the old on-premise system and the new cloud system co-exist seamlessly during the eight-month migration. That, and many other technical issues, involved a huge amount of work behind the scenes to set everything up in advance of the actual migration.

Ultimately, Nexus365 is a service that allows better collaboration: along with email and calendaring, users also get access to other Office 365 applications such as Skype, Groups and Teams. So it is fitting that the project itself included much collaboration.

While the Nexus team were working on the design, build and testing of the infrastructure, the Projects team (responsible for business change and communication) were working on the rollout. An innovation on this project was that both teams worked together in the same office, improving communication and getting things done more quickly.

The collaboration also involved the wider University through the ITSS technical consultation group which included IT support staff from divisions and colleges. The Service Desk was also involved right from the start, and planning ahead meant they were able to anticipate and manage large call volumes from new users.

By the end of the project, we had migrated nearly 42,000 mailboxes, visited around 190 sites – with over 500 days worked by our support team of 'floorwalkers' – and migrated over 55 TB of email and calendar data.



Photograph: iStock – MaboHH

### Migrating data centres

When a data centre supports the University's key business applications it is important that these systems remain available at all times. Normally that means using a resilient system where data is replicated in primary and secondary data centres: if one goes down, the other takes over. When one of those data centres has to be migrated, it requires much forward planning.

Over a weekend in February, we migrated half of the University's administrative systems in the Begbroke data centre to a new hall in the University Shared Data Centre. This meant months of planning to minimise the risk that systems might be unavailable. The services involved – including HR, finance and student systems – underpin the University's administration, so it was important to choose a time to do the work that avoided critical periods for each area of the business.

Planning also covered the physical infrastructure needed at the new data centre (such as networking and server racks) and a process to shut down all the services running at Begbroke in a controlled sequence. Then there was the actual migration, physically relocating the hardware, before getting everything back up and running in as short a time as possible.

This was another step in a series of interlinked projects to upgrade and consolidate our data centres. This year we also commissioned a new Jisc–VIRTUS data centre in Slough, and by the end of the programme we will have two inter-linked centres. This will improve our capacity, reliability and security with resilient data centres to meet the University's needs for the future.

> "For me, the Nexus365 migration was smooth, seamless and basically faultless. I'm impressed."
>
> Ashley Woltering, Senior Bodleian Technical Architect, Bodleian Libraries

**10 million**
phone calls made through Chorus

**75% increase**
in network traffic in two years

**68 terabytes**
data downloaded each day – as much as 714,000 DVDs

# Cybersecurity

Our job is both to protect the University from attack and to ensure that everyone has the knowledge and awareness to play their part, enabling everyone in the collegiate University to carry out their business, teaching and research with confidence.

Our Information Security Team is a central service which empowers IT Services and the wider collegiate University to reduce the risk of data breaches and security incidents. We approach security from two directions, firstly by improving the technology behind the scenes that will protect our users but also by raising awareness among those users. Recognising the important role users and colleagues play, we have improved the training information available and carried out exercises to raise awareness.

Photograph: iStock – webphotographeer

## Highlights this year

### New Information Security website

- The user-friendly website includes guidelines for staff and students on safe working practices.
- We have expanded the general advice to show how it applies at Oxford. All 'I want to' pages have an 'At Oxford' section with Oxford-specific details, such as keeping your Single Sign-On safe.
- The website is now hosted on the Oxford Mosaic platform.

### Simulated phishing attacks

- We began a series of campaigns to raise awareness of the risk from phishing and malicious emails.
- With advance warning from senior management, we sent authorised simulated phishing emails to over 6,000 people in 23 sections, departments and colleges.
- The emails were based on common phishing messages we receive at the University such as mailbox quota warnings or parcel delivery requests.
- People who downloaded an attachment or followed a link got a 'Think before you click' message.

### Looking ahead

- Endpoint security: virus protection for devices such as PCs and servers. We have selected a product, Sophos, and will be implementing improved protection.
- As part of the Nexus365 project, we are introducing new email security tools to give greater protection from malicious content and phishing.

Photograph: iStock – SARINYAPINNGAM

### Information governance for medical researchers

When the Medical Sciences Division (MSD) wanted to set up an Information Governance Office, they came to our Information Security Team (IST) for help.

Information governance is about managing information in a way that takes into account elements such as information security, data governance and legal compliance. Academics within MSD work with large amounts of medical data from several external data sources, so these are significant issues for them.

For researchers, activities relevant to information governance include meeting regulatory requirements for medical research, making grant applications and dealing with third-party suppliers who handle information on their behalf. Medical and scientific research involves a large number of external bodies such as the National Institute for Health Research and the Medical Research Council, as well as data providers such as NHS Digital. All these relationships need to be managed.

By providing the Information Governance Office as a service, the Information Security Team takes that burden away from researchers. The service co-ordinates information governance across the division and also liaises with central University departments such as Research Services, Legal Services and IT Services.

The IST set up the service in August 2017, and now offer a package of support and guidance that includes help with risk management, an internal audit and a data security and protection toolkit. They also act as a central knowledge bank, disseminating information from regulatory bodies and data providers. The result is a streamlined service that improves knowledge and processes across MSD, freeing up researchers to focus on their research.

### Managing payment card risk

In ten years, the amount of card payments made to the University has grown hugely: in 2017 it was six times the 2007 figure. There are 70 card terminals and over 20 e-commerce websites, processing 366,000 card transactions each year.

That reflects the growth in the use of credit cards generally, and that growth is reflected in the increasingly stringent standards within the payment card industry.

The industry standards for data security are set by the Payment Card Industry (PCI), and 'acquiring banks' such as Worldpay (which process card payments on behalf of merchants) now require merchants using their services to meet these standards.

While many merchants, like the University, had always managed the risks associated with card payments, these industry standards mean more consistency and increased confidence on all sides. When the University's acquiring bank made PCI compliance a contractual requirement, the Finance division called in IT Services and the Information Security Team to help.

The project we managed had three aims: to bring standards for card terminals and e-commerce sites to compliance where possible, to plan for compliance in other areas such as phone transactions, and to make it easier for parts of the University that want to take card payments to do so, with clear processes and guidance.

We now know how we can store, process and transmit cardholder data in line with industry standards. For the majority of areas we have met these requirements, and are developing plans to close the final gaps.

> "The structure and focus provided by the PCI compliance project means that we have made real progress. I am confident that the closer working relationship between Information Security and Finance, and the new processes we now have in place, will ensure that we can achieve and maintain compliance with the PCI Data Security Standard."
>
> Bridget Midwinter, Chief Cashier, Finance Division

**3,351**
people passed our online awareness module

# IT Service Excellence

As demand continues to grow, we are always looking to improve the way we manage our IT services – with a focus on the customers across the University who need to use them.

This year, around 9,000 incidents and requests were sent to IT Services each month, reflecting the rising demand for support in the use of technology across the University.

As one of our main customer-facing teams, the Service Desk has seen a huge rise in requests. In April 2018, the team received twice the number of calls than in April 2017. We are working hard to meet this demand and have implemented a package of improvements, from providing a Service Desk self-service portal for routine service requests to improving the self-help information on the IT Services Help website. Looking ahead, we are mapping demand on resources to help us manage better our peaks and troughs in the future.

Understanding the way technology is used within the University also helps us to better support our customers. Our Service Desk analysts now use the new features of Nexus365, such as Microsoft Teams for internal team chat, and our long-term ambition is for them to develop expertise in other technologies used across the University.

Another goal is to work more closely with local IT support staff in departments and colleges. Steps taken this year have included sharing access to best-practice Service Desk Institute training, improving self-help and making IT service management (ITSM) tools available to the wider IT community.

## Highlights this year

### Resource planning for predictable delivery

- A new time tracking facility across IT Services will allow for more accurate service costing and project charging.
- New processes and tools for allocating resource have been rolled out to half of the department so far. Rollout to the rest of the department is being planned.
- This allows us to see resource capacity and demand, so we can identify and address bottlenecks and optimise delivery plans.

### Investing in our staff

- Service Desk staff attended a professional training course with the Service Desk Institute, to build on existing skills.
- We have created a Service Desk charter to promote a professional and consistent way of working.

### Support for Nexus365 transition

- Two extra Service Desk staff were brought in to deal with the additional workload around the University-wide Nexus365 migration.
- We continue to work closely with the project team, sharing knowledge and helping to anticipate spikes in demand.

### Looking ahead

Our Windows 10 project will upgrade all desktop devices managed by IT Services from Windows 7 to Windows 10. Online training and guidance will be available to help staff with the transition.


Photograph: Rob Judges

### Remote support to speed up troubleshooting

A new remote access tool, Bomgar, is helping our Service Desk analysts to see through our customers' eyes and to resolve customer queries more effectively.

The new tool, which complements the well established channels of telephone and email, can be used to remotely support customers anywhere in the world on any data connected device. Customers are first asked to grant permission to access their device and are guided step-by-step over the telephone for the duration of the session.

To alleviate any concerns around security and trust, the Service Desk now follows a formal call handling framework. We have guidelines on the sensitive use of remote support and the need for informed consent and these are incorporated within our customer-facing code of conduct.

Bomgar is integrated within our service management system, HEAT, which means that a record of the remote session is saved in case any follow-up is needed.

We have extended use of the software beyond IT Services so that local IT support staff can benefit from what is now a low cost, platform-agnostic tool.

### Getting connected

Our Desktop Services team has been in much demand this year by new users taking up the CONNECT managed desktop service. The service, which provides office computers, network drive storage and local printing, is used by staff in University Administration and Services (UAS) and the Bodleian Libraries – and those numbers are growing. As new units, such as Oxford University Sport, the Oxford Learning Institute and the Language Centre, became part of UAS, the CONNECT team stepped up to get them on board.

There were also another 400 new users to look after, because the University Gardens and Museums also requested the service.

The year-long project started with an intensive fact-finding period looking at existing facilities and future requirements: everything from software and hardware to printing and data storage. There were some challenges specific to museums, like how to store research data about museum collections and learning about specialist software such as MuseumsPlus, used for management of collections. This meant working closely with staff in the museums to learn about a completely new type of business compared to UAS.

Once the migrations are all completed, users will have the benefit of a robust, centrally managed desktop service with regular security updates and a five-yearly refresh of hardware. Individual staff members can log into any CONNECT PC within the University and get a consistent experience. The project will also make collaboration between the museums and the Bodleian Libraries easier, because they will all be on the same standardised system.

> "The roll out of CONNECT is a pivotal step in the transition of previously disparate IT support units into a single IT team covering the University's Gardens and Museums."
>
> Haas Ezzet, Head of IT, Oxford University Gardens and Museums

**44%**

annual increase in calls to the service desk

# Widening Engagement

Widening engagement is a priority area within the University Strategic Plan, and a major aspect of the strategy is delivered through a strong digital presence.

Photograph: Peter Robinson

The University's engagement with the wider community has a lot to achieve: showcasing the museums' collections, encouraging members of the public to attend exhibitions and events, and highlighting research to the academic community or subject enthusiasts. Then there are prospective students, reached through the University's work with schools.

We support and enable this engagement and outreach in several ways. Much takes place online through websites and apps, keeping our Application Development team busy. Our Educational Media Services play a huge part, too, through podcasts, video and live streaming, allowing colleagues across the University to rethink engagement and find new ways of reaching people.

## Highlights this year

### Museums on Mosaic

- The Ashmolean Museum's new website was built on the Oxford Mosaic web platform – the most ambitious project on the platform to date.
- Other museums and gardens followed suit, and the new Oxford Botanic Garden & Arboretum website launched in the spring.

### Mobile app builder

- This new platform lets anyone in the University build a simple, mobile-optimised web app, creating pages, then adding content and simple functionality.
- Currently in beta, it is available to staff and students – you just access through your Single Sign-On.

### Looking ahead

Oxford Stories is a series of mobile-optimised web apps for telling stories about Oxford's places and museum collections from different perspectives. The first stories have been curated by the Pitt Rivers Museum and TORCH (the Oxford Research Centre in the Humanities), with potential for many more.

### Live streaming for global reach

When Stephen Hawking gave a lecture at the Mathematical Institute in October last year, tickets sold out in record time. We were able to make the lecture available to a much larger audience through live streaming the event. Our live streaming service has been more popular than ever this year, with increasing use of Facebook Live as well as the University portal on livestream.com.

The service was regularly used by the University's Widening Access and Participation team as part of their Oxplore initiative for young people. They turned our basement studio space in Banbury Road into a television studio, broadcasting interactive learning sessions into schools. The Oxplore team provided the content – lively discussions with young, approachable academics – and our in-house crew took care of the tech.

During the past year, we have also broadcast a maths lecture from the Science Museum, a research showcase (Curiosity Carnival) from the Ashmolean, several VIP lectures – and, as part of Brain Week, a live experiment in real time from an MRI scanner at the John Radcliffe Hospital.



# IT Staff and Skills

IT services and support depend on the skills and knowledge of the people providing them, so we ensure that our staff have opportunities to grow professionally. We also provide IT training and skills for colleagues across the University.


Photograph: Peter Robinson

Our ambition for the department is that IT Services will be 'great to work with and a great place to work'. Our new 'Working Together' initiative seeks to improve the way that we work together and with partners across the University.

We also have an important role to play in equipping members of the University in IT skills. We provide opportunities for skills development, not only for central IT Services staff but also for local IT support staff and for other staff and students across the University. The University's subscription to Lynda.com is now in its third year and take-up has exceeded expectations, showing the popularity of online learning.

## Highlights this year

### Leadership programme for IT Services staff

- The programme included two cohorts, with 40 people taking part this year.
- The improved programme now includes group challenges investigating processes across the department.

### Widening recruitment

- We have adopted new ways to improve diversity in the department, particularly in terms of age (our average age is 46).
- New approaches include filling vacancies at a junior level and providing a development plan for these new starters.

### IT Support Staff Services (ITS3)

- ITS3 is a single contact point for local IT support staff in departments, faculties and colleges, providing services and training and the annual ICT Forum conference.
- Training this year included technical (VMWare and Microsoft), and industry best practice (Service Desk Institute qualifications and training in IT service management).

### Working together with vision

As part of the evolution of IT Services, we have introduced 'Working Together', a programme of work to bring the department together with a common culture that makes everyone feel valued. It is partly about belonging – uniting a department that historically came out of three distinct entities – and partly about improving the way we work together.

Workshops for team leaders covered serious questions about 'vision and visible culture' and 'behaviours and barriers', but there was fun too, like December's 'Advent calendar' of social activities. In the summer we invited local artist Dorothy Megaw to run lunchtime workshops for staff, allowing colleagues to collaborate creatively and to explore their workplace from a different angle.

A series of IT Services Cafes have also proved enjoyable events, allowing staff to meet in an informal environment to engage with the aspirational, but achievable, attributes that are key to the programme. The long-term aim is that these will be embedded not just into standard processes but also into personal interactions – improving our working relationships both within the department and with partners across the University.

Help & Support: **help.it.ox.ac.uk**

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