



UCD IT Services
Seirbhísí TF UCD



Going Mobile

Annual Review

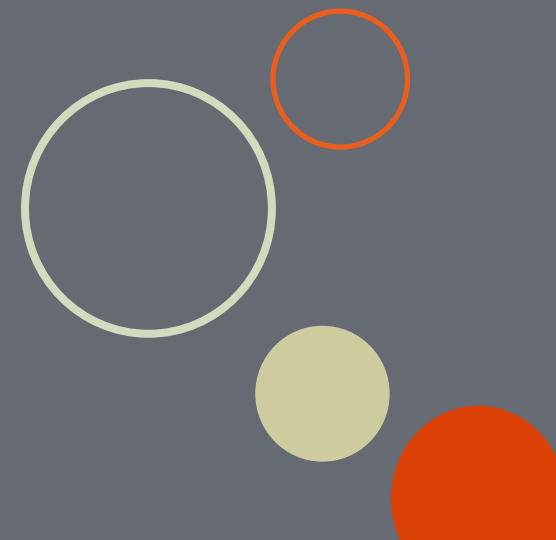
2011

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Introduction

The focus for IT Services throughout 2011 was enhancing the user experience and access to information. Key objectives were to develop and improve systems and services delivering electronic content to students and staff and sustaining the quality of the IT Infrastructure.



Going Mobile



Going Mobile

IT Services aim to provide a range of services which are readily accessible and meet the needs of UCD staff and students and the broader community interacting with UCD.

In keeping with emerging technology two mobile apps were launched during 2011. 'Blackboard Mobile Learn' was launched in February with 5,000 unique users (by end 2011) and 'UCD Mobile' the university app was published in the App store in August 2011 and includes: Blackboard Mobile Learn, News & Events, Directory search, UCD Image showcase, UCD videos, campus maps and locations. UCD Mobile for Apple devices (iPhones, iPods and iPads) had 6,000 downloads by end 2011. The Android version was launched in October with over 1,000 downloads by year end.

Getting around campus has been much easier for new students (with Apple and Android devices) since the launch of UCD Mobile. They now have access to an interactive campus map and can see exactly where they are and how to get to the building they are searching for.

Visitors, staff and students can easily find members of staff as the staff directory in UCD Mobile is linked to the map service. The incorporation of Blackboard Mobile Learn gives students and staff anytime access to course notes and interactive features. Further handy features include University News, access to the University Noticeboard and real-time scores and fixtures with the Sports feature.



The Future of Flexible Learning

The Future of Flexible Learning

The future of teaching and learning lies in flexible access to information and 'Blackboard Mobile Learn' offers just that.

Genevieve Dalton, Head of Teaching & Learning IT explains "Based on the increase in mobile devices on campus we decided that we want to make our main services available over mobile. It makes teaching and learning more interesting for students and easier for staff."

Now students can be contacted with relevant updates via their phone rather than relying on traditional formats. The app is available for Android, Blackberry and Apple devices and is also a key feature of the UCD Mobile app. It allows students to check announcements and course content using their smart phones as well as comment on blogs and threaded discussions and even upload media.

John Zhang, (Masters in International Management) says "Access to all classes, have discussions with friends, it's really a good way to communicate and see all the stuff happening."

Asked about students reception of Blackboard Mobile Learn, Dr. Michael MacDonnell, Director of the UCD Quinn School of Business says "Our students are very responsive to new technology and it has been very effective in mixing our learning delivery to improve learning outcomes."

The majority of students, who have downloaded it, check it more than once a day and feedback has been positive.





The 'New Student' Experience

The 'New Student' Experience

Last year new students starting at UCD entered a technologically advanced campus with many IT services available at the touch of a button.

Before arriving on campus, new students could download UCD Mobile, the UCD app, and have an interactive map to help them find their way, along with many more useful features.

During Orientation week (5-9 September 2011) 3,737 new students attended IT Induction. The Induction experience is designed to help students make a smooth transition to using UCD systems and IT services. Here they learned about accessing the UCD network, using UCD Connect the online resource for email, calendar, personal files and about Blackboard our elearning system. At the end of the 20 minute course, each student received a 4GB disk key with a link to our online IT guide for 2011-12.

Connecting to the wireless network is even easier since August 2011 when the service was streamlined. Students can also avail of open access PC labs. During the summer the delivery of the software in these labs was enhanced and the PCs were upgraded to a Windows 7 operating system.

New students are encouraged to ask for help. IT Services have four drop-in IT Centres, where staff and students bring their laptops. The IT Helpdesk, open 9-5.30am Monday to Friday can be contacted by phone or email and all the information a new student or staff member needs to know is online at www.ucd.ie/it

Cloud Services for Students

Cloud Services for Students

Now students at UCD have increased email storage and can see their daily schedule of classes and personal appointments at a glance.

During May 2011, the UCD Student Mail Service was transitioned to a new cloud service provided by Google. Single sign-on from UCD Connect is available together with direct login outside of the Connect environment. The storage allocation for each student was increased from 2Gb to 7Gb as part of the transition and then to 25Gb at the beginning of September. This brings the total mail storage allocation for students to over 500 Terabytes with students personal storage at 31Gb each.

Students' class timetables were also incorporated into their Google calendars meaning that 'todays' events are visible in a channel in Connect without logging into the Student Information System. They can add their own appointments and get a composite view of their schedule. The calendar and timetable can easily be synced to smart phones along with email so that all this information is available at the touch of a button.

The response to these changes has been very positive and moving to a cloud solution has significantly reduced administrative and system enhancement costs for UCD.





Creating Digital Content

Pictured above are Dr. Kieran O'Loughlin, St. Vincent's University Hospital and a student engaging in a role playing counselling session for the making of the e-tutorial.

Creating Digital Content

IT Services provides media-rich support material for many units and schools. This year the development of digital content helped students hone their communications skills.

This year the Media Services team was awarded one of the 2011 Awards for Supporting Student Learning for work on a range of Psychiatry e-tutorials with the UCD School of Medicine & Medical Science.

The tutorials cover topics ranging from 'Taking Case Histories' to 'Affective Disorders' and 'Delirium'. These e-tutorials allow students to make mistakes, learn from these mistakes and hone their communication skills. This helps the students to grow in confidence, add to their knowledge base and become more effective communicators.

According to Dr. Allys Guerandel, Senior Clinical Lecturer in Psychiatry, health professionals have identified Communication Skills as one of the critical skills in student education, adding that "The students have consistently given very positive feedback on these as demonstrated in the recent Medical Council Accreditation visit when the Council commended the e-tutorials."

During the year, IT Services also worked with the James Joyce Library team to develop a number of instructional videos to assist students when availing of the wide range of UCD Library Services across the five libraries. Work was also done with the Office of the Vice President for Students to develop a series of podcasts as part of the UCD Student Induction Programme.

Disaster Recovery “In Action”

A person wearing a red shirt is seen from the back, looking at a row of server racks in a data center. The server racks are filled with various components, and some have glowing green lights. The person's hand is near one of the server units, suggesting they are performing maintenance or troubleshooting.

Disaster Recovery “In Action”

On Thursday 8th December 2012, a server caught fire in the Daedalus Data Centre triggering immediate implementation of the IT Services Disaster Recovery Plan.

The fire was contained immediately, preventing significant data loss and damage, with all core services back up and running within four hours.

The incident triggered the fire alarm and gas suppression system, resulting in the immediate shutdown of the Data Centre. It took several days before systems located there were fully re-activated. However, UCD operates two main data centres, specifically to protect core services in this type of incident, and the recovery plan was activated to restore systems and services from the UCD Computer Centre.

In this case, internet access was restored within 90 minutes; primary student services (student email and Blackboard) by 6pm, and remaining primary services were operating - some at reduced capacity - by 8pm.

Using available facilities, staff and students were notified promptly and received regular status updates. Key activities such as exam operations were supported through direct contact with IT Services management and technical resources.

On Friday 9th December, the source of the fire was identified, allowing power to be restored, and enabling research systems and services hosted in Daedalus to re-commence over the weekend. When all services were fully restored IT Services initiated a review to learn from the incident, and evolve service planning.

“Congratulations on the very successful containment of disruption from such a serious incident at a critical time of year.”

Dr. Mark G. Richardson, Head of School, School of Civil, Structural & Environmental Engineering (12 December 2011)



UCD CASL

Complex and Adaptive Systems Laboratory



CASL Case Study

CASL Case Study

Since 1996, SFI Stokes Professor of Computer Science and Informatics, Joao Marques-Silva has been researching and developing constraint solving algorithms and tools that find applications in the design and validation of software and hardware systems. He has been based in UCD Complex and Adaptive Systems Laboratory (CASL) since 2009.

When asked what his work involves he explains “in simple terms it is taking some target properties of a software or hardware system and representing these as ‘logical constraints’ that can be checked for consistency or for “optimising target criteria”. Professor Marques-Silva specialises in addressing overspecification of constraint systems. This includes removing irrelevant instructions for detecting a software bug and finding the minimum number of tests required to test a software problem.

The outcome is that Professor Marques-Silva’s work has been used to develop tools that software providers use to minimise or prevent error. Bug Assist, for example, is a tool used by Max Planck Institute, which was developed using Professor Marques-Silva’s MSUnCore2, the MaxSAT solver.

The UCD Phaeton High Performance Compute cluster is employed extensively by his team to run their research. According to Professor Marques-Silva “The main advantage of using the Phaeton cluster is that we can receive feedback in days that would otherwise take weeks or months to retrieve.”

“Research IT gave us their input initially in terms of using the cluster, and I was impressed with their availability and support.”

Professor Joao Marques-Silva (SFI Stokes Professor of Computer Science and Informatics)



Keeping Staff Ahead of the Curve

Keeping Staff Ahead of the Curve

As technology is constantly changing, IT Services strives to provide staff with the means to stay ahead of the curve, through user device trials of new technologies and training on latest MS Office applications.

Training in Microsoft Office Specialist 2007 was provided for staff during 2011 and reached targets set by the Higher Education Authority securing further funding to bring Microsoft Office 2010 training to UCD. This training initiative was launched in January 2011 giving many members of staff free training and certification in MS Office 2010 Excel, Word, PowerPoint and Access. Along with training, all staff can avail of a free copy of MS Office 2010 for home use.

Since the User Device Trials began in 2010, ten devices have been made available for university personnel and units to borrow and test. By the end of 2011, there were over 100 loans to various university users, who offered feedback on their use of the devices.

Any new-to-market devices relevant for academic use of technology will be considered for inclusion in future user trials, such as iPad2 & 3 and Google Chromebook with Chrome OS.

Teaching and Learning IT ran over twenty training events throughout the year with 225 attending and Media Services workshops and educational technology courses were also very popular with 214 participants attending throughout the year.



Managing the Delivery of Information

Managing the Delivery of Information

During 2011, IT Services delivered IT solutions to support operational needs working on a large number of projects across various functional areas such as Registry, HR, Research, Finance and Residences.

Additionally, the Management Services team extended the use of UCD InfoHub, UCD's web-based tool for delivering information and managing processes online. Using the university's Identity Management System to enable access to services and data, UCD InfoHub was used to deliver management information in a range of areas, including details on student applications and staff numbers to senior university management, and information on research projects to researchers and school heads.

InfoHub was also used during the year to generate administrative savings by moving a number of processes online. Examples of these include the fee transfer facility, which provides for direct transfer of funds from a cost centre to a student fee account, as well as the online student payments facility, enabling direct lodgements to a bank account. This service has been used by many students to place deposits on campus accommodation.

In addition, the first student self-service documents were made available via InfoHub in 2011, giving students and external third parties the facility to print academic statements online.

Fostering Collaboration



Fostering Collaboration

Inter-university collaboration continued in 2011 with the implementation of a shared wireless service and the ninth eLearning Summer School.

UCD IT Services in partnership with other members of the Dublin Region Higher Education Alliance (DRHEA) organised the ninth eLearning Summer School. The week-long series of talks and workshops gave academic staff from across Dublin's third-level colleges, an opportunity to discuss issues relating to eLearning and to exchange ideas.

In 2011 the Summer School was named best case study by the Universities and Colleges Information Systems Association (UCISA) UK's Academic Support Group and was included as one of ten case studies featured in a UCISA best practice guide highlighting good practice in engaging academics in the use of Technology Enhanced Learning (TEL).

From May to June 2011, the Innovation Alliance, based in Newman House, ran a three week module called "Creative Thinking and Innovation". PhD students from UCD and Trinity came together and were tasked with various challenges. One of which was brainstorming on an app for Coillte. UCD IT Services provided the wireless service. The module was very successful. According to Frances Mitchell, Academy Facilitator, "The IT services were faultless and this had a massive impact on getting the job done."

During the year, eduroam (the shared flexible wireless service introduced through the Innovation Alliance) was successfully rolled out and implemented in all wireless locations in UCD.

Attendees of the ninth Dublin eLearning Summer School collaborate. This School ran at DIT Aungier Street during the week of 20–24 June 2011, convened under the auspices of the Dublin Region Higher Education Alliance (DRHEA)

2011 The year in Numbers

3,836,278

kiloWatt hours used across the UCD Data Centres, this is equivalent to the electrical consumption of 723 Irish homes

38,309

the total calls from students and staff logged by IT Support

25,614

highest monthly discussion board postings in Blackboard in 2011

2,700,000

compute core hours consumed in 2011 by the UCD condo on the ICHEC Stokes Supercomputer

42,565

the peak monthly number of unique devices on the wireless network

625

terabytes of email storage allocated to students in 2011