

Information and Communication Technologies (ICT)

Annual Report to Senate – Session 2008/09

Liaison

It is essential that ICT's offering to the student body remain up to date and relevant. To facilitate this ICT organised a survey in the Summer term to obtain feedback from students on the services it offers. There were over 2,000 responses, 92% of which were very positive about ICT's services. A summary of results and ICT's response will appear during the Autumn term 2009. The survey helps ICT to maintain its close relationship with the student body and remain relevant to students IT needs.

The liaison between ICT and its customers in terms of teaching and research is handled via a number of routes, including the ICT User Advisory Panel (ICTAP), ICT Link Management, and the Student Experience stream programme board.

ICTAP includes representatives from each Department, each of the medical campus sites, and a representative from the Student Union. ICTAP met on 3 occasions during the 2008/09 academic year. In addition much information about ICT service issues e.g. service interruptions, is made available via the ICTAP mailing list.

The ICT Link Management function provides for liaison between Faculties and their Departments/Divisions, Business School, Libraries, Humanities, Student Union and ICT.

The Student Experience Stream within the Business Systems section of ICT manages College projects in this area and includes active representation from the Student Union.

Liaison on e-learning is via the College e-Learning Committee, the Faculty e-Learning Implementation Groups (ELIGs) and the ELIG which covers other parts of the College e.g. Library and Humanities.

Teaching Clusters

Faculty support teams worked with Departments over the Summer vacation to provide upgraded software on teaching clusters. There are some 40 different teaching cluster builds for MS Windows involving over 2500 PCs and using 500+ software packages. An increasing number of Departments, (e.g. Bio Chemistry, Chemistry, Electrical Engineering, Earth Science Engineering, Maths, Mechanical Engineering) now use ICT's supported RedHat linux system for some of their teaching and project work.

A new ICT/Library training room was opened on level 2 of the Library building. This provides via desktop virtualisation both Windows and Redhat Linux environments, and allows users to switch from one to the other without rebooting the machines. When not used for training purposes the PCs are used by students as public access machines.

Further machines were made available to the Student Union officers and their club officials to use. These are covered by the College PC renewal scheme.

Additional space has been provided free of charge to some Departments for student projects both on Windows systems and also via the new central NFS file service on Linux systems.

The ICT print service continues to be popular providing access to both mono and colour, networked multi-function printer/copiers both in Departmental PC teaching rooms and the libraries. Almost all Departments have now adopted this approach. Many departments provide some free printing to students, who can also purchase additional credits using money loaders in various libraries or via the e-pay web service.

Use of laptops to support teaching continues in Civil Engineering and with Maths PhD students. A pilot was also run with Chemistry using laptops running Linux and accessing the Gaussain applications software from the HPC SGI Altix cluster.

Support for student owned systems

Many students arrive at College with their own laptop or desktop system. ICT provides a web page with links to a free virus checker and other useful security tools. Symantec (Norton) Anti-virus (SAV) software is also available to students free of charge. Laptop surgeries were held to help students with configuring their laptops for College use, installation of SAV and general security checks.

ICT continues to pursue software licencing arrangements which allow students to use software on their own machines at an appropriate reduced cost. Information on these deals is available on the ICT web site.

Guidance on a suitable laptop configuration for use within College was provided via the online FAQ mechanism used to provide information to applicants.

A number of improvements were made to the network in student halls. These included upgrade of wired connections from 10 Mbit/sec to 100 Mbits/sec, blanket wireless coverage of Southside hall, and wireless connectivity in public areas of all halls.

e-Learning and e-exams

Usage of the Blackboard (previously WebCT) Virtual Learning Environment (VLE) continued to grow over the year 2008/09, as more Departments now use the College VLE. In 2008/09, the peak monthly usage was some 10,000 individuals, an increase of 2000 on 2007/08.

We upgraded to Version 8 in time for academic year 2008/09 and it has proved very reliable. There has been no unplanned loss of service, although an ongoing issue has required the system to be restarted from time to time. Careful monitoring by ICT has enabled this to take place at times which avoid disruption to teaching. The system reported concurrent usage often in excess of 400 users with an absolute peak of some 900 users. Plans are in place to upgrade to a 4 node system in time for 2009/10 to provide increased capacity.

The VLE has been linked with the Turnitin plagiarism service from JISC. This allows students to directly upload documents to Turnitin. This has been well received. A joint ICT/Library course on plagiarism is being prepared for the new academic year 09/10.

A presentation was made to the Rector on how the VLE is used to support teaching and in particular how it can provide feedback eg in online assessments, to students.

Last year's proof of concept running a computer based examination involving over 100 1st year UGs from Civil Engineering was successful. The locked down kiosk system was used for the 'real' examination in 2008/9 and also with an MSc option in Physics.

ICT has expanded its e-Learning group by appointing another full-time member of staff bringing its head count to 3.6 FTE. This person provides help with use of the VLE, Turnitin, Web Accessibility and has a special responsibility for e-assessment.

Multi Media and Audio/Visual Support

The video streaming service continues to be popular. There are some discussions on provision of support for Flash files as well as REAL files.

A further tranche of large lecture theatres in South Kensington have had their Audio Visual equipment replaced with a minimum standard of equipment and the same control system in each room. This programme has been well received. Support is split between ICT, which provides 3rd line support and Departments, who provide the essential 1st line support. This is not always ideal.

The Echo360 video capture system is growing in popularity. The Business School used it in 3 lecture theatres last year as did one of the Medicine Msc courses. The Imperial College NHS Trust is also interested in using Echo360 to support its education function.

Collaboration and Student Portal

The Confluence wiki service introduced in 2007/08 continues to be successful and is used to support both teaching and research. MS Sharepoint has also been introduced during the year to provide shared space for collaboration and group development of documents. There is close integration with MS Office 2007.

ICT supported the Communications Division in its use of student blogs to provide an insight into student life at College. This initiative won an award from EduStyle HE web awards in the Most Innovative category.

The MyImperial student portal went live at the start of the academic year 2008/09. It provides a single way into information (library, student hub, registry, Imperial news, Student news, BBC news, TFL status, SU Web) and systems (e-mail, VLE, student self-service, library, My Timetable) used by students. Students can customise the portal to add additional links, change the layout, remove things they find unhelpful. Although there were some performance issues at start of term, response from students has been very positive and the number of users has exceeded expectations.

Student Experience Programme

The student e-service, used for online registration, access to exam results etc was switched to using the College username and password from mid November 2008. This completes work to provide a common sign on, the College username and password, for nearly all student activities. This has been well received and makes life

easier for new students in the College. Work is in hand to bring the library catalogue system in line.

Work to enable easier online processing of UG and PG admissions was carried out over the year. A new interactive front end was provided for admissions, which has been well received by Departmental staff. Staff were also provided with a way of seeing the student e-service view and an intuitive interface to see student contact, course and exam information via Faculty e-Service.

The stream steering board has a new chair, Prof Susan Eisenbach of DoC and is now focusing on systems to support department specific student data and the interface with central systems. This includes systems to support provision of better feedback to students.