Kingston University

1 Introduction

Modern Kingston University is the result of a series of mergers, completed in the 1970s, involving the amalgamation of the local College of Technology, Art School and Gypsy Hill College of Education. Its roots date back at least as far as the founding of Kingston Technical Institute, which opened its doors in 1899.

Kingston has been one of the fastest growing higher education institutions in the past decade. The total number of students at 1 December 2003 was 16,914[1]. There are approximately 14,500 FTE students. Kingston employs approximately 750 academic and research staff.

Kingston aims to be a university for the whole community and seeks to "combine the best of the old with the best of the new". It seeks to strengthen its teaching excellence by building a stronger research base in terms of traditional science and scholarship but also through technology transfer and community outreach.

The University aims to provide courses that are "vocationally relevant, intellectually sound and at the cutting edge of practice". The quality of learning and teaching is strongly emphasised, with all course developments and teaching approaches aiming to enhance quality and improve the student experience.

The University has a strong commitment to widening participation and is an active participant in the Partnerships for Progression initiative. Kingston is a pioneer in Foundation Degrees, work-based Masters courses and innovative forms of continuing education but remains committed to providing high-quality undergraduate and postgraduate courses. Kingston's courses are modularised.

Academic activities at Kingston take place in six faculties[2] and the School of Education. These are sub-divided into schools responsible for undergraduate and postgraduate courses, and research in broad subject areas.

One in 10 student is studying computing and information technology subjects. Kingston's New Technology Institute, one of only two in London, brings together the University and its college and industrial partners to offer courses in information technology.

Student access to information and communication technology facilities has continued to expand both on and off campus with extended opening hours at Learning Resources Centres. Network connections have been provided to 25 per cent of rooms in halls of residence and this provision will grow in line with increased student demand. Specialist network software has also been provided to make information and communication technology more accessible for students with disabilities.

[1] Excluding students completing University degree programmes overseas
[2] Faculty of Art, Design & Music Architecture and Landscape; Faculty of Arts and Social Sciences; Faculty of Business; Faculty of Health and Social Care Sciences; Faculty of Science; Faculty of Technology

2 Current state of play

The University has put very substantial investment in elearning, based primarily on the Blackboard System. Blackboard Learning System (Release 6) and Blackboard Learning and Community Portal 6.0.11 are currently at the core of Kingston's architecture. Media integration is provided through Matrix video server hardware and software. Questionmark Perception is used to administer and deliver online assessments. The blackboard system is linked to SITS, Kingston's Student and Course Management System.

Current use

Over two-thirds of the University's modules are available on Blackboard – the philosophy is that e-learning should supplement and enrich, not replace, traditional methods. At Kingston, face-to-face teaching is typically combined with practical activity - most students have studio, laboratory or work-based sessions included in their curriculum. Kingston's learning management system has to accommodate this successful scenario, and can be used to explore complementary and alternative models, depending on the specific requirements and characteristics of courses, staff and students.

The introduction and embedding of Blackboard is seen as one of the most significant developments of the past years at the university. Blackboard was originally introduced in 2000 as software to support teaching and learning rather than to change the model of teaching. The aim was twofold – to help students who had to take on work commitments and might therefore not always be able to make particular lectures or seminars and to help students with revision, by enabling them to revisit material and to pose questions around particular queries or issues.

Things have moved on rapidly. Blackboard is now extensively used to allow all students to access learning material at times and places convenient to them and to facilitate communication between students and with their lecturers. Lecture notes, overheads and assignment tasks along with student timetables are now routinely put online for the 70 per cent of modules active in Blackboard. Bulletin boards support online discussion between staff and students and among students.

Considerable development and training has taken place to help staff produce enhanced material and to integrate Blackboard-supported learning with traditional lectures, laboratory and studio work. Emphasis is placed on spreading this good practice across the institution. Staff e-learning centres have been established at the Penrhyn Road and Kingston Hill campuses and will be set up at the two smaller campuses. These have specialist tools for the production of content-rich learning materials, streaming video and audio and support for staff. During the coming year, academic staff will discuss new models of teaching and learning based on e-learning and plan future strategy in this area.

In addition, an externally-funded research project running for two and a half years is investigating and evaluating the use of the virtual learning environment to support students both before applying to university and in their first year at Kingston. This will provide important information about how e-based communication and mentoring, combined with modules about moving on to higher education, can encourage access to university. The research on the use of the virtual learning environment within the University will also guide academic staff on key issues around integrating Blackboard into teaching and developing online delivery skills to sit alongside the continued development of face-to-face support.

The University's Library Services has been restructured and will provide more active support for the integration of library e-resources with online course material and allow closer working with academic staff to develop electronic resources linked to Blackboard and will build the University's digital library resources.

Drivers and objectives

As mentioned before, the central idea is to supplement and enrich traditional methods. Drivers for MLE development derive from Kingston University's Learning & Teaching strategy (version 2000), which flags 6 broad themes for attention:

- Learning and teaching
- Assessment
- Student support and guidance
- Learning resources
- Staff development
- Quality assurance

Specific objectives relating to MLE development in this strategy include:

- Increase use of web technology to improve access and support learning;
- Develop infrastructure for the delivery of web based learning and teaching materials;
- Support development of high quality learning and teaching materials taking full advantage of opportunities offered by ICT.
- All staff to have access to the means of upgrading professional competence, in particular ICT use for course delivery

Activity was initiated to achieve these objectives: in 2000, infrastructure to support a learning management system (LMS) was identified and installed. A LMS package (Blackboard) for the university was selected and installed in the same year and the Educational Technology Unit (ETU) was established to support the introduction of the system. Targets for the use of web technology in support of course delivery were set in 2001 for the end of the 2001, 2002 and 2003 academic years. Student training is provided to further support effective use of ICT, including classroom technology.

The appropriateness and continued relevance of the central premise 'to supplement and enrich traditional methods' is assessed and refined by a review of the curriculum and pedagogy against the potential offered by ICT. ETU staff at Kingston feels that wider trends and thinking in the area of blended learning closely link to this starting point and the advances made to date, and offer potential to underpin further progression routes.

External Drivers

A number of national and international partnership arrangements are also driving – and influenced by – the way in which Kingston envisages use of various LMS and MLE components. These developments are closely linked to an agenda of widening participation.

An important initiative is the New Technologies Institute (NTI). With 7 associated FE colleges it provides 2-year accredited work-based foundation degrees in IT for e-business[3]. (For approximately 1000 students in 3 years) The NTI will be supported by a separate, 2nd LMS implementation at Kingston. New developments via the NTI include a feeder course to be taught by FE colleges and (Microsoft) accredited courses in Secondary Schools. Both have potential to be supported by Blackboard.

On the same platform used by the NTI, the university offers a regional Hosting Service, currently offered to approximately 10 colleges. Blackboard's *portal* role allows distinguishing between the NTI community and the rest of the colleges' students/staff – NTI affiliation allows access to additional Kingston services, e.g. the library.

[3] Including Network Specialist, Software specialist, Web specialist and Business Applications

Kingston franchises a wide range of courses internationally, with approximately 1200 overseas students in 2003. All students on such courses are Kingston-registered and may be supported via the LMS. It is used for courses in Moscow, Greece, Sri Lanka and Hong Kong.

3 Strategy

Strategic framework

A number of ways were put in place to support the achievement of objectives in the Learning and Teaching strategy. The University's learning and Teaching Development Unit (LTDU) led and co-ordinated the implementation, monitoring and evaluation of the strategy, and the ETU was established to support the introduction of Blackboard. High-level support (at Deputy Vice Chancellor level) ensured corporate ownership of the e-learning agenda, was seen as instrumental in the early stages of strategy development, and facilitated success in subsequent development and implementation work.

From the start, a single application as the university standard was preferred, to maximise opportunities for manageability, interoperability and transfer of lessons learned; to allow economies of scale and to ensure that potential for innovation could be developed and captured as a strategic asset.

Support - Education Technology Unit

The ETU was established on the 1st September 2000 to implement, support and promote Educational Technology in supporting and enhancing learning and teaching within the context of the University's Teaching and Learning Strategy. The Unit is working closely with the LTDU and its key responsibilities are identified within the University Teaching and Learning Strategy. The primary responsibility is the Implementation and development of Blackboard, including the provision of staff and student training. Other responsibilities include working with and supporting others (e.g. Boards of Studies, Computer Services, Library & Media Services) in implementing aspects of the Learning and Teaching strategy such as:

- Profiling skills of entrants
- Monitoring developments
- Advising on analysis of student feedback
- Standards for internal hardware and software provision for student use
- Improving assessment practice
- Ensuring that ICT is fully exploited

Consultation, dissemination and embedding:

To ensure uptake and embedding within the faculties and existing and evolving pedagogic frameworks, Educational Technology Leaders were appointed (for 40% of their time) in each faculty to act as champions and support staff in developing the use of ICT in course management development and delivery of learning, teaching an assessment, working closely with the ETU.

This has lead to some exciting 'pathfinder' developments. E.g., a principal lecturer in the School of Architecture and Landscape will be developing a project to enhance a virtual learning environment in landscape architecture, supported by the award of a National Teaching Fellowship. The lessons from this are intended to be transferable across the University and nationally. Central funding was allocated in 2002/2003 to 25 projects involving 35 academics to produce enhanced learning materials to be used as exemplars.

4 The implementation process

Blackboard, a central component of Kingston's learning management infrastructure was originally introduced in October 2000. The original implementation was seen as time-critical, which resulted in a phased approach.

Phase1 (October 2000) delivered a standalone implementation, supporting up to 500 simultaneous users. By the end of January 2001, approximately 100 exemplar modules were created and online, and staff and student guides had been distributed by the ETU Faculty representatives. All members of staff involved in exemplar modules were enrolled and modules entitled "Blackboard for Staff" and "Blackboard for Students" (one per Faculty) had been created as an additional source of assistance for all staff and students involved in exemplar modules. By March 2001, trials, including access and performance testing, of a video streaming server had been initiated to allow use of richer media formats within the LMS in preparation of roll-out across the facilities and campuses.

Phase 2 (September 2001) delivered a full-scale service integrated with back-office systems and network authentication, supporting up to 1000 simultaneous users. On the media front, following successful piloting in phase 1, a production video server hardware and software were acquired and integrated in the architecture from the summer of 2002.

At the same time, A pilot to evaluate on-line assessment tools was undertaken and a funded research project commenced to examine the issues for using Blackboard to support widening participation.

By October 2003, 1400 modules were active in the LMS (out of 2000 modules in total across the university) and 90% of academic staff used it. The overall trend has been to start with content development for first-year modules. The target for the next year is to have 100% staff use, with advanced training delivered to 25% (up from 5% in October 2003).

A signs that use of the LMS facilities in day to day learning and teaching had started to mature and critical mass had been achieved was evident a the start of the 2002/2003 academic year, when initial user support responsibility for Blackboard-related queries (e.g. password, login or web browser type issues) was transferred from the ETU to ICT Services Helpdesk personnel. Advanced queries remained the responsibility of the ETU.

5 The future

Kingston University shows a relatively mature situation based on adoption of a university-wide technical platform and infrastructure plus widespread availability and use of its LMS by staff and students alike. Evidence starts to emerge of diversification in use, with interesting developments pointing towards a more encompassing application of the learning environment, including increased use of self-testing, some formal testing through the LMS, and online mentoring (in year 2 and 3) in addition to seminars.

Reflecting these developments, the university approach to e-learning support is now moving away from module by module support towards subject or course based approaches and development of materials on a course-team basis. This necessitates the augmentation of team skills to include instructional design and learning theories and quality assurance skills.

Course teams are increasingly likely to include teaching assistants, admin- and technical staff, with library staff already actively engaged. The university will review the course portfolio and subjects to move beyond supplementary mode use of the available facilities to blended

learning. The new Learning Content management System is seen as vital to the success of this approach.

Looking even further ahead, Kingston is undertaking a three-year research project into 'Learning and New technologies', measuring the impact of the LMS. It has two strands:

E-Access – investigates how online mentoring facilities in the LMS can help to increase progression to higher education of students from under-represented groups – e.g. by helping to change attitudes and perceptions; making HE application procedure easier and more effective for such students; promote development of such students as effective and confident learners

E-Success – investigates how elearning systems can support learning and teaching for a diverse range of students – e.g. by supporting staff in profiling new students; support for students with a variety of learning styles to become effective learners; support for under-represented groups during induction and later on; improving satisfaction and retention.

Tentative questions are asked if Blackboard virtual installations would be cost-effective and should be considered. Already, Kingston's Regional Blackboard Hosting service has been offered to secondary schools, but this seems currently a step to far.

However, for Kingston's in-house students, as an academic member of staff commented: "Blackboard is now firmly locked into the student experience from day one". As a result of this achievement, student expectations are very high, both concerning 24/7 availability and stability, and with regard to the quality of content made available, of which they have already seen some very good examples which have become their natural benchmarks. Kingston's strategic framework seems well capable of putting in place the structures to meet these expectations.

In summary, at Kingston these aspects of design and implementation of a Managed learning Environments are particularly notable:

- Phased, but rapid introduction and wide roll-out, consolidated on one university-wide infrastructure;
- Start with clear articulation of use of technology in supplementary mode, with moves to blended learning now becoming visible;
- Champions within senior management and within faculties essential for successful development and uptake;
- Use of LMS is integral to student experience right from the start;
- Student expectations are rising and drive further development work and dissemination of good / successful practice;
- Elearning platforms used beyond support for core university constituency, closely linked to partnership initiatives and Kingston's agenda for widening participation;
- Research into pedagogy and wider opportunities and implications undertaken to harness further development.