**Case study**

**The Open University**

The Open University (OU) has been a pioneer in higher education for more than four decades to ensure that neither distance nor academic background is a barrier to learning. As Britain's only specialist, dedicated distance learning provider, the university has delivered learning through a rich mixture of media bringing scalable, flexible, high-quality learning to its 250,000-plus students.

The OU has developed its own style of online learning called 'supported open learning' giving its students flexibility to study when and where suits them best. This is in keeping with the university's founding mission to be open to people, places, methods and ideas.

Supported open learning means OU students have:

* support from a tutor or online forum to help with module material, activities and assignments
* student advisers and study facilities in their own region, and
* contact with other students at tutorials, day schools or through online conferencing, online social networks and informal study groups.

The university has focused on developing pedagogy to enable the widest range of learners studying from their homes and workplaces.

Increasingly learners are accessing their learning through mobile technology and the university enables learning on smartphones and tablet computers. The culture of innovation is institution-wide with the Knowledge Media Institute providing a focus for research and development and the Institute of Educational Technology having a role in pedagogic support and staff development. The use of technology is built into the course development process from the outset with learning materials produced by interdisciplinary teams.

The OU virtual learning environment is integrated with student records and systems for curriculum design and e-assessment. About 500,000 assignments were submitted online in 2009, resulting in more rapid and flexible feedback to students on their progress.

The university's systems help students to link to each other online and get the right syllabus, content and assessments. At the heart of the virtual learning environment is Moodle, the leading open source learning management system. The OU has enhanced the system considerably and fed improvements back to the Moodle community.

The OU now has 164,000 active users of Moodle and is receiving hits from as many as 50,000 separate individuals every day. It has 545 active module sites which is almost all of our courses. The OU's web-site generates 50 million page impressions a month with content spread across 2,000-plus web-sites.

The university's customer relationship management system (known as VOICE), using Siebel technology, is critical for compiling a comprehensive record of a student's contact with the OU. The system handles one million service requests per year.

The OU is also harnessing the reach and power of the web and of social networks to bring learning opportunities to millions more people internationally. Open University iTunes U has had more than 25 million downloads and the OU View area of YouTube.edu has attracted over 3 million views.

The university hosts a dedicated web-site, OpenLearn, offering free and open access to OU course materials. The site, which has received 14 million visits, delivers over 8,000 hours of study materials in 12 subject areas from access- to postgraduate-level courses.

These online tools and environments developed by the OU are powering major international development programmes in some of the poorest nations. Examples include the TESSA teacher education programme which is helping nations in sub-Saharan Africa deliver both teacher training and curriculum materials to improve opportunities for young people and contribute to wealth creation. Over 300,000 teachers have enrolled on the programme which was awarded a Queen's Anniversary Prize for Further and Higher Education in 2009.

This technology is also used in the HEAT health education programme which currently has a $4 million UNICEF grant to educate more than 30,000 rural health workers in Ethiopia.

**Case study**

**Cardiff University**

Cardiff University began its Lean University Project in 2006. It is strongly supported by the Vice‐Chancellor who sees the project as playing a vital role in the University’s strategic development and shaping the way the University works, and creating momentum that secures and sustains external recognition as one of the 50 World Leading Universities by 2020 (http://www.cardiff.ac.uk/lean/index.html). The Vice‐Chancellor is familiar with LEAN from his engineering background, and the University has a LEAN Enterprise Research Group in its Business School; however an acknowledged challenge has been applying the five key Principals of LEAN in an academic environment. The five principals are:

• Identify customers and specify value,

• Identify and map the value stream,

• Create flow by eliminating waste,

• Respond to customer ‘pull’,

• Pursue perfection.

Those challenges have included the concept of the student as a ‘pure‘ customer and customer ‘pull’ – producing only what the customer wants when the customer wants it. The complexity and interrelationship of processes in HE have also been a limiting factor, but this has been overcome by application of process mapping techniques.

There have been positive benefits in engaging all individuals involved in a process (‘bringing everyone together in one room’) to generate an awareness of the ‘big picture’ and the impact of the actions of one member (or unit) on others.

The University began by identifying three key areas for attention: programme approval, purchase orders and payments, and the development needs of new researchers. The second area was prompted by installation of a new computer system. Recommendations from the first area, programme approval, were not implemented but a new manager has embraced them and the University has now been supported by JISC in the Programme approval lean

electronic toolkit (PALET)10.

Utilising the Lean Thinking methodology for process improvements, the PALET project will develop revised procedures for the approval of new programmes to create a more agile, efficient and flexible approach to the design of curricula and the subsequent approval process. In the context of the University’s Modern IT Working Environment (MWE) project, a service‐oriented approach will be utilised to develop a toolset to support academic and support staff through each stage of the new programme approval process, which will also ensure that the resulting programme and module information is clearly defined and can be seamlessly utilised by other business applications.

The four key aims of the project are:

• Improvements to the business case developed to support a new programme proposal,

• Consideration of the processes used to design programmes,

• A streamlining of the information required in a new programme proposal and enhancements to the links between this and a programme’s operation,

• Implementation of a revised procedure for the approval of new programmes.

The University’s central LEAN Unit has supported some 40 programmes to date, and a major review of the student lifecycle is now in progress. Emphasis is placed on the fact that the Unit does not carry responsibility for implementation; implementation is for the manager(s) of the relevant area(s).

The University has mounted a LEAN Skills for Management Programme, and engaged staff in implementation of the outcomes of reviews in order to sustain implementation and ongoing improvement.

The new Head and the new Manager of the University’s School of Nursing and Midwifery initiated LEAN review to produce a new Strategic Vision for the School, to identify what the School does well and less well, and to produce a ‘route map’ of School‐owned projects to achieve the Vision. Coupled with the championship of the Vice‐Chancellor, it is very clear that ‘top‐down’ drive is needed, although successful implementation and ongoing improvement very much depends on wide‐spread ownership at all levels.

One of the first reviews undertaken by the School of Nursing and Midwifery with central LEAN Unit assistance was a review of the committee structure; this has now produced a very significant saving of 33% in time. This is now being prepared as a case study for the informal group of HEIs using LEAN including: Cardiff, Napier, Plymouth and St Andrews ([www.st‐andrews.ac.uk/lean/](http://www.st‐andrews.ac.uk/lean/)). This group shares information and good practice but emphasis is laid on the fact that benchmarking is not necessarily carried out between the HEIs. The focus is within each HEI, and on staff ‘owning’ benchmarking and benchmarks.