

[cover sheet]

**University of London External System  
Information Systems Board  
Discussion paper**

**eLearning Strategy Review: from eCampus to Open Campus**

The following discussion paper is the conclusion of a review of eLearning Strategy carried out by the Information Systems Board during 2006, informed by the recommendations of the External System Review Group and consultations with representatives from the University's Colleges.

**University of London External System  
Information Systems Board  
Discussion paper**

**eLearning Strategy Review: from eCampus to Open Campus**

**Summary**

This paper outlines a top-level strategy and key recommendations for the modernisation and future development of online learning and administrative services for the External System, currently referred to collectively as the 'eCampus'.

The strategy provides greater flexibility for individual Colleges and programmes in the adoption of eLearning tools and more potential to work with external partners. This will be achieved through the construction of an eLearning framework that uses open software standards to link modular applications and services into a coherent whole.

This service-based approach can accommodate the wide diversity of tools, learning styles and teaching/learning policies encompassed by the federal University and its constituent Colleges. It provides a strategic direction for teaching and learning information systems that enables the implementation of key recommendations of the External System Review Group. This will enable the University to move forward from the current closed architecture of the eCampus to a set of open standards-based technologies that can better support distributed and blended learning programmes (the 'Open Campus'),

The strategy reflects earlier decisions reported to ESLCC, and takes account of the adoption of new eLearning tools by new and existing programmes, including the two largest, undergraduate Laws and EMFSS programmes from LSE. The new framework will include the introduction of a common web portal and authentication system for students and staff, and the agreement of common, evolving software standards with College development teams.

The current External System virtual learning environment, Effect, will be phased out. The Moodle open-source eLearning environment will be introduced as the principal provider of eLearning tools for the External System, alongside other applications where appropriate.

The strategy envisages a transition period of no more than three years for programmes currently using Effect. Some additional transitional funding will be required but there should be long-term savings for the University.

These recommendations have been considered by the Information Systems Board and adjusted in the light of comments from the Board and further discussion. Consultations with principal users of current eCampus services are under way, and a detailed business plan will be submitted to ESLCC in the light of these consultations.

**The External System Academic Board is asked to consider the proposals and to recommend the framework-based approach to eLearning to the External System Lead Colleges Committee for adoption as policy for the External System and for allocation of the necessary resources to support the transition.**

Brian Sayer, Distance Learning Adviser  
Peter Marsden, Strategic Information Systems Manager  
Directorate of Learning and Development  
on behalf of the Information Systems Board

<b>Contents</b>	<b>Page</b>
Summary	2
Key Recommendations	3
The External System Review Group	4
The eCampus	3
The Open Campus	6
Conclusion	9
Appendix: eFramework	10

### **Key Recommendations**

1. Further development of the eCampus should be through a service-oriented, framework approach to the provision of learning technologies<sup>1</sup> for the External System, congruent with the internationally emerging eFramework<sup>2</sup>. Adoption of the new umbrella title 'Open Campus' will reinforce and support the significance of this change.
2. Development should enable eLearning applications in use both in the External System and across the federal University to work together, by providing a framework within which modular applications will communicate using a common language ('interoperability') and be accessed through a common portal.
3. Future development should aim to provide colleges with a range of modular eLearning tools and technologies via a flexible open-standards interface.
4. The Moodle open-source eLearning environment, hosted by the University's Computer Centre, should be the principal source for the modular toolset.
5. Other eLearning tools to be used should conform to a common standard, characterised by: single sign-on; a single portal; 'interoperability' through web services; and XML as a common language for information and services
6. The current virtual learning environment, Effect, should be phased out within three years, subject to current consultations with programme teams to agree an appropriate migration strategy, either to new External System eLearning applications or to other systems in use within the College concerned.

7. During the implementation phase, commencing immediately, new study programme developments will be encouraged to use the Moodle learning environment.

Acceptance of these recommendations would mean that:

- Priority would be given to the development of a portal and authentication system for the External System using Oracle Internet Directory.
- Priority will be given to the adoption of interoperability standards and methodologies.
- New programme developments would not be offered access to Effect.
- As now, Colleges would be free to use other preferred systems and applications, but these would be linked into a common framework – giving shared access to common services such as the OnLine Library and Atlas student administration.

#### NOTES

1. For a definition of the service-oriented approach to eLearning, see the JISC website at: <http://www.jisc.ac.uk/elearningfocus>
2. For the JISC-sponsored eFramework, see: <http://www.e-framework.org/>.  
A diagram showing a conceptual outline of how the eFramework for the External System might look is attached as an Appendix to this paper.

### **1 The External System Review Group**

The External System Review Group which reported in July 2006 called for priority to be given to the development of new technologies and new media in distance learning, and cautioned against the External System becoming locked into outmoded technology. The Review Group emphasised the need for interoperability between IT systems and stronger links with Lead Colleges.

The Review Group recommended that the overall goals for the External System should include:

- Enhanced collaboration with the Lead Colleges in all areas of activity.
- Freedom for Colleges to make strategic decisions on the services they would use, except in an area of core services such as examinations.
- Greater synergy between provision of services for external and internal students.
- Access rights for students to teaching and learning resources that are equivalent to those for students studying in London

The Group also called for a commitment to the development of, and leadership in, best practice in Distributed Learning, with priority given to the adoption of appropriate new technologies and new media.

In particular the Review Group recommended that there should be no further substantial investment in the current VLE platform (Effect), and that an options review should be carried out.

This last recommendation has had an immediate impact on current programme developments. Programme Directors have been reluctant to commit to Effect until the outcome of the options review is known. As a result, review processes which were already in place have been accelerated, consolidating discussions with Lead Colleges through the mechanisms of the Information Systems Board.

Several programme development teams have now indicated their willingness to use a modular eLearning toolset and/or to use the Moodle learning environment.

The recommendations made in this paper are intended to ensure that the External System can provide a more flexible service to College programme teams, can provide a coherent framework for the eLearning services to students, and can enable the University and its students to benefit from new media and technologies such as mobiles and 'web 2.0'.

## **2 The eCampus**

The External System eCampus was one of the first strategic University-level eLearning systems to be established in the UK, towards the end of 2000. This decision has served the University well, enabling the External System to move in a relatively short period of time to offer an online environment to students on a large number of programmes.

The eCampus initially offered choice of a range of virtual learning environments to study programme developers, reflecting the range of systems already in use within the Colleges. Within a short time, these initial programme teams collectively decided to adopt a single common VLE platform, using Lotus Domino to build in-house a unique VLE which became known as Effect.

In practice, however, other learning environments have always been used alongside Effect, notably WebCT. At the same time, differing College requirements for Effect resulted in separate instances which differ in functionality.

Over the past six years, the eLearning landscape has changed significantly. Today there is much greater competition for international students, including those taught locally. There has been an explosion in the available learning environments and technologies, with widespread take-up of eLearning across the higher-education sector. Library services have been transformed with the rapid digitisation of literature and journals, giving access to materials previously only accessible in major research libraries.

Knowledge of eLearning has developed significantly both within the External System and across the Federal University. Most Colleges now have ICT policies

and eLearning strategies that include a preferred eLearning environment. Increasingly, Colleges are aware that eLearning can offer study materials and opportunities to all learners, full-time or part-time, on-campus or at a distance.

Within this context, the External System provides a federal structure through which the Colleges can access resources - including funding - to extend their study programmes to students worldwide through distance learning. Each programme is a partnership between one or more Colleges and the External System, with academic leadership provided by the College and various aspects of infrastructure and learning services provided system-wide. All students are registered with the University, rather than with an individual College.

The resulting requirements for eLearning systems are complex, with the need to take account of diversity among Colleges on many levels: diverse study programmes, diverse pedagogical models, diverse technical infrastructures – not to mention diversity between students spread worldwide, many drawing support from a highly-diverse range of local teaching institutions.

The task for the eCampus is not to provide any single 'approved' eLearning environment, but to enable programme teams in the Colleges to respond to this diversity by making their own choices, then to link and integrate these into a coherent framework for the student.

### **3 The Open Campus**

The proposed solution is to move away from reliance on any single on-line learning environment, preferring instead to introduce a modular architecture and a service-oriented framework approach, aligned closely to the JISC eLearning Framework, which is better-suited to the complex jigsaw of diversity - differing functionality requirements, technologies and authorities - represented within the federal University.

This framework approach offers a set of services to meet the needs of the University community, each of which may be defined at different levels of detail. This gives greater flexibility and ability to respond quickly to changing needs.

Moreover, the framework approach is a policy decision rather than a single-technology decision. It sets out broad principles that can be realized in an evolutionary manner - so there is no significant requirement for major new capital investment. Instead planning and implementing the change is a matter of managing transitions and the realignment of services and tools, using existing resources and mindful of current and future commitments.

#### **3.1 Where next for eLearning?**

Commitment to a single common eLearning environment has proved problematic. Use of the preferred application is hard to enforce, while the level

of investment required to build and constantly extend an in-house development is difficult to maintain. Yet without this investment the University is in danger of gradually becoming locked into an outdated technology that cannot respond to changing needs or changing demographics.

The adoption of Effect, based on Lotus Domino, as the e-learning platform for the External System was intended to achieve a flexible model that could accommodate the diversity within the External System, effectively offering bespoke environments for each study programme but sharing common technologies and data.

Over the past six years Effect has provided eLearning for students on more than a third of external study programmes at ten Colleges.

In the longer term, however, an in-house application with a developer community of two people cannot keep up with the rapid advance of web technology worldwide. At the same time there has been limited progress in achieving an effective interface between Domino and other information systems used within the University. In IT terms the Domino infrastructure is 'old' technology and cannot provide the functionality that is now provided by new web standards and technologies.

Moodle, on the other hand, has a developer community spread throughout higher education in the UK and key markets and with a growing user base within London. It offers extensive functionality and is founded on open-source technologies and open software standards, new web technologies that offer greater flexibility. It is designed to support new pedagogical approaches having been developed in response to the perceived limitations of WebCT and other longer-established proprietary platforms,. It is already installed and in use within the central University and at least four Colleges.

Using free software also offers specific advantages for the External System insofar as using Moodle need not carry cost implications for potential delivery partners in other institutions. Moreover it is available in many different language versions offering potential for further support development of core skills and peer support within a multi-national student body.

The Information Systems Board has recommended that Moodle should be adopted as the External System's primary eLearning toolset. Moodle would be the application of first choice where it can provide what is required, but other applications would be considered where Moodle cannot currently provide.

However it is important to emphasise that Moodle will be used as a toolset, not a single, all-encompassing learning environment. To do that would be to be in danger of replicating current problems – missing and less-than-adequate functionality, incompatibility with College eLearning systems, the need to invest in development.

### 3.2 **Managing the transition**

The framework approach will be a significant departure for the University's information systems. However it can be introduced progressively, for both new and redeveloped programmes, and individual migration pathways can be designed for those study programmes that use the current systems. A consultative process is under way with the College teams concerned.

Some additional transitional funding will be required for the costs of migrating data, training users and running parallel systems during the transitional phase. However the implementation plan will aim to meet all other costs from within existing resource allocations for information systems. There should also be long-term savings on licence costs, as well as economies of scale from adopting common systems across central activities - for example by adopting Moodle as a common platform used by the External System and other University Divisions.

The Information Systems Board has identified four key transitional issues that will need to be addressed during planning consultations with the Colleges.

1. Colleges may prefer to remain with the Effect environment, requiring us to run two similar applications on a semi-permanent basis.

Continuing to use the current learning environment beyond a transitional period is not considered a viable option for the External System as a whole. It may, however, be preferred by individual external programmes or programme clusters, in which case the responsibility for maintaining the system would ultimately need to pass to the College.

2. Colleges will be concerned with the implications for their own eLearning strategies.

The modular, open standards, framework approach is designed to reposition External System information systems so that working with College systems and those of external institutions is made easier. This interoperability project should provide a useful pathfinder for the federal University as a whole.

Within the University, BlackBoard in particular has been adopted by the Bloomsbury Learning Environment (BLE) and merits specific consideration. BlackBoard also retains a dominant position in the UK eLearning marketplace, although Moodle is rapidly catching up. Specific discussions should be held with the BLE technology group as well as with external programme teams within those Colleges to address the fitting of BlackBoard within the framework.

3. Colleges will need to be assured that any necessary migrations will cause minimal disruption. Additional development funding will be needed to support the transition process, whilst maintaining a full current service to students.

Nonetheless, support for Domino technology is an area of vulnerability and a swift migration is preferred. ULCC may be better-placed to support the Open Campus development because it will make greater use of applications that fit the ULCC skillset, particularly through the resources of the JISC Regional Support Centre.

4. It may be difficult to replicate existing functionality such as SOAS's implementation of assignment handling. The Board does not recommend that we attempt to establish a like-for-like migration of the environment but work with programme teams to plan and implement new learning environments for each programme.

## **Conclusion**

The Open Campus represents a significant departure from the current strategy which relies on a small number of discrete vertically-integrated and 'closed' systems, based mainly on proprietary software. In particular it will involve a change from the current approach of working within extensive and incompatible virtual learning environments to a modular approach that can provide the functionality needed for widely-differing programmes and pedagogical approaches. The goal is to develop a system that:

- is aligned with current and emerging standards and systems for ICTs,
- can accommodate and interoperate with the Colleges' preferred environments,
- can be accessible and affordable for the External System's other existing and potential stakeholder groups worldwide,
- is flexible and capable of evolution
- supports the development of a modular but integrated learning technology service for the federal University, building on the strengths and achievements of the work done by EISA, the University Research Library Services and the University Computer Centre since the launch of the eCampus six years ago.

The strategy offers both a technical modernisation of External System eLearning provision and a more flexible and open system that can be readily adapted and adjusted to support new forms of provision and new institutional arrangements.

It seeks to realise the goals of the External System Review Group in achieving greater freedom for Colleges to make strategic decisions, greater synergy between provision of services for external and internal students, whilst offering increased choice of eLearning tools and services to programme teams and to students..

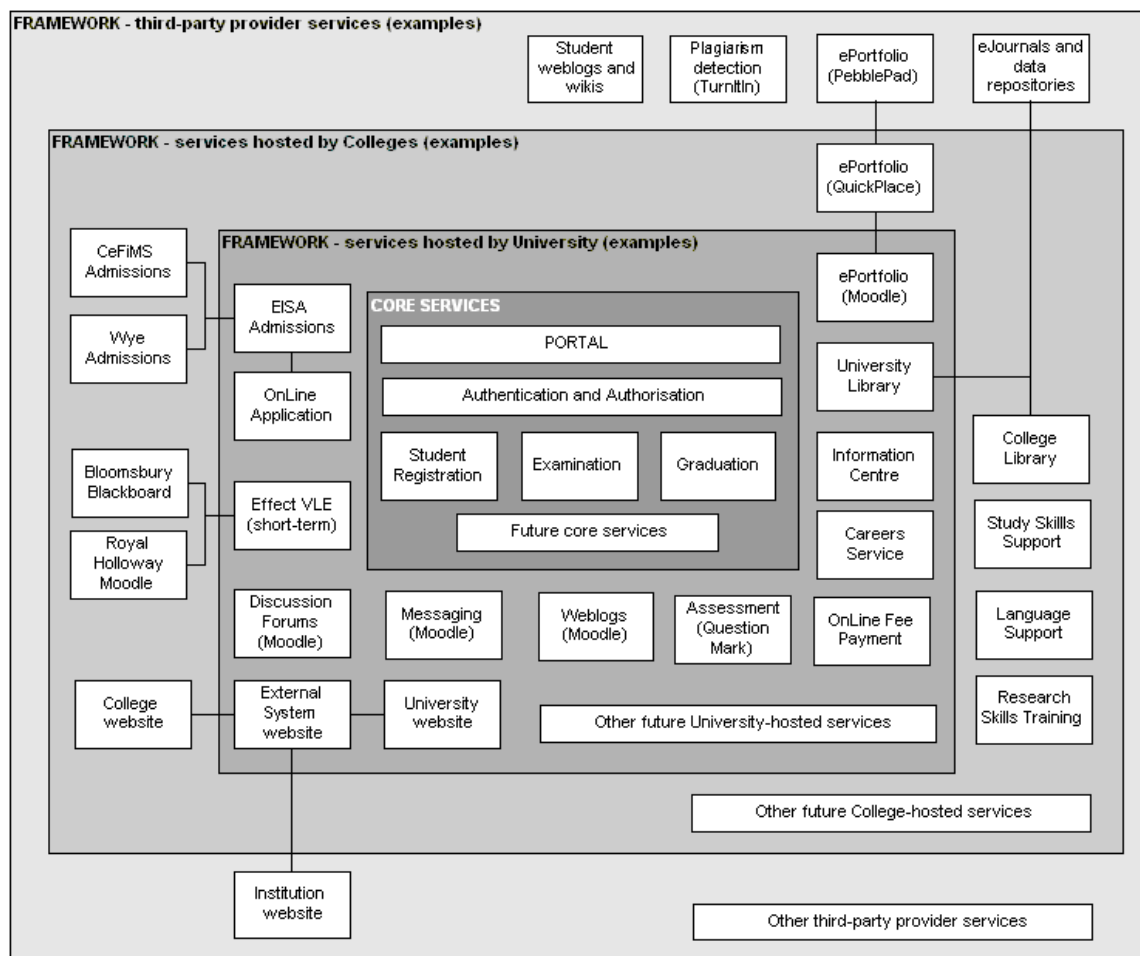
eLearning Strategy Review

Brian Sayer and Peter Marsden for the External System Information Systems Board

December 2006

## Appendix: eFramework conceptual overview

The External System eFramework is designed to link together eLearning tools and services from a variety of sources. The diagram below offers a simplified view. At its centre are core services provided by the University, with other 'layers' of provision shown in the outer boxes – optional services hosted by the University, the Colleges and third-party providers.



### WORKING PRINCIPLES:

- 1: **Selectivity**  
Each study programme team selects for its students the subset of eLearning services available within the framework that best delivers its academic and pedagogical goals.
- 2: **Interoperability**  
All selected eLearning tools and services are integrated into the framework, and therefore with each other, through open-standards interoperability.