



## **Authenticated Networked Guided Environment for Learning**

### **How did project start?**

The ANGEL (Authenticated Networked Guided Environment for Learning) Project is funded by the Joint Information System Committee (JISC) as part of its Learning and Teaching programme. ANGEL is part of a cluster of projects that are aimed at improving access to and accessibility of JISC resources in support of learning and teaching.

The primary aim of the ANGEL project is to investigate the secure integration of learning environments with digital libraries.

### **Who is involved?**

The ANGEL project team is formed of a consortium of partners throughout the UK. The lead partner is the London School of Economics and Political Science (LSE) whose core roles within the project are project management, technical development and dissemination and evaluation. De Montfort University complete the technical development team, and also provide support for dissemination and evaluation activities. The University of Edinburgh are responsible for the main development of the authentication and authorisation component of the project. The consortium is completed by Sheffield Hallam University, EDINA and South Bank University as associate partners contributing to the steering of the project and to the testing and evaluation phases.

### **What are the goals?**

The initial remit of the project was to examine the seamless integration of resources into Virtual Learning Environments.

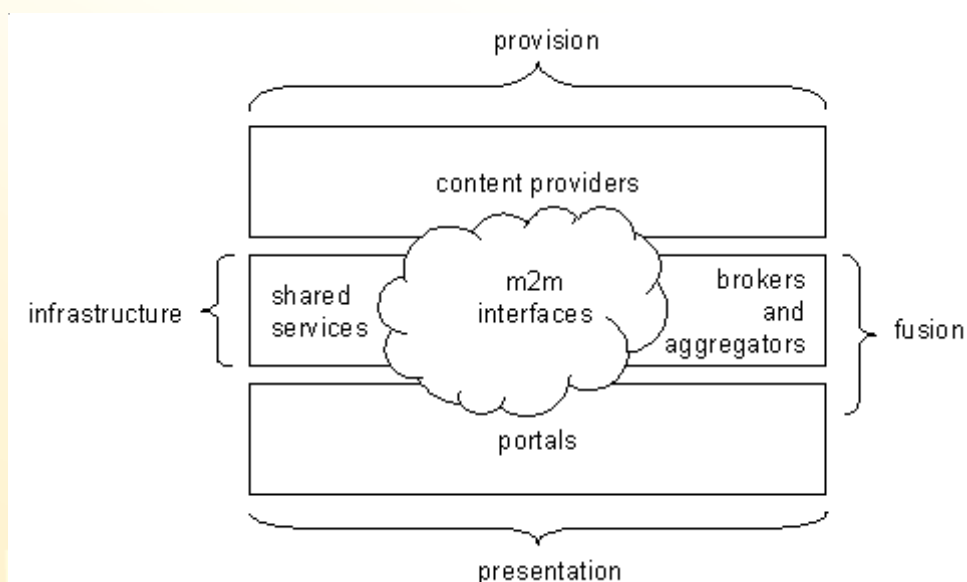
The original design for such as system including building a learning environment (the 'GEL') into which these resources could be integrated. An initial evaluation period of the current status of Virtual Learning Environments (VLEs) within the UK HE sector made it clear that the construction of another online learning environment would not be welcomed by a community already overwhelmed by the proliferation of 'Interfaces to Everything'. Users expressed a desire to continue using familiar front-ends (such as the university website, portals, Blackboard, WebCT etc.), but recognised the potential offered by tools that could make access to resources via these routes seamless.

In response to this need, the ANGEL team decided to design and build a selection of middleware tools that could be adopted for use with a variety of front and back end services. These services also act to promote the use of standards and interoperability throughout the UK HE sector. These middleware services are known as the ANGEL Resource Manager, User Manager, and Scheduled Services Manager. Each manager is described in detail in further Information Sheets.

### **Where does this fit into the JISC strategy?**

Figure One gives an overview of the Information Environment. The ANGEL middleware applications will occupy the middle 'fusion' section, sitting between the server (provision) and client (presentation) layers. Interaction directly with the middleware will be limited to a set of administrative tools. All other services will be accessed through the presentation layer.

## Authenticated Networked Guided Environment for Learning



Powell, Andy and Lyon, Liz. The DNER Technical Architecture: scoping the information environment.  
University of Bath: UKOLN, 18 May 2001.  
< <http://www.ukoln.ac.uk/distributed-systems/jisc-ie/arch/dner-arch.html>>.

### What can ANGEL do for me?

The ANGEL applications will address many of the issues hindering the secure integration of learning environments with digital libraries, including:

- ◆ Single sign-on.
- ◆ Appropriate copy.
- ◆ Maintaining URLs.

These issues are investigated further in the Scenario Sheets available with this Information Pack.

### When does the project finish?

The ANGEL project is funded by JISC from October 2000 to February 2003. The ANGEL middleware will be available to the community as open source applications from September 2002, supported by a user mailing list <[angel-insiders@jiscmail.ac.uk](mailto:angel-insiders@jiscmail.ac.uk)>. All information regarding the ANGEL project and applications can be found on the ANGEL website.

[www.angel.ac.uk](http://www.angel.ac.uk)