

## ANGEL IS . . .

ANGEL is a set of independent but interconnected Web services, some to be installed locally by a university or college, others that may operate on a shared basis. These services will be invisible to the end-user, allowing him or her to continue to use familiar interfaces. ANGEL middleware will deal specifically with functions of authentication & authorisation, resource discovery management, and service maintenance, via the three 'manager' components described here.

### USER MANAGER

The User Manager (UM) will control (or interface to externally managed) information about the end user. Together with the Resource Manager, the UM will facilitate user authentication and authorisation. The ANGEL project is working towards a single sign-on model of authentication and authorisation to overcome the problems of repeated authentication challenges and multiple passwords. To this end, ANGEL is working with JCAS on the Sparta specification, examining future authentication and authorisation requirements within UK HEI.

ANGEL is specifically looking at two models: the American Shibboleth developments and the European PAPI design. The UM will allow the institution to assign rights groups, and to collect session information.

### RESOURCE MANAGER

The Resource Manager (RM) will be responsible for controlling metadata about information resources. The RM will ensure that the 'appropriate copy' of a resource is presented to the student, taking into account access privileges defined by both vendors and institutions, and accessibility problems. This may guide the student directly to an electronic copy, offer the location of a print version, or instigate an inter-library loan request.

The institutional effort spent on maintaining metadata within the Resource Manager will contribute to the DNER infrastructure by presenting collections within the RM as Z39.50 targets to external searches. Richer interaction will be possible between two or more institutional ANGEL services, such as the sharing of resource descriptions.

## THE ANGEL COMPONENTS

### SCHEDULED SERVICES MANAGER

The Scheduled Services Manager (SSM) will allow the user to schedule automatic functions and tasks. This will include the maintenance of referenced URLs, license expiry warning, and collection checking for both staff and students. Users will also be able to run particular searches across resources at specified times, and schedule current awareness alerts. This will allow the user to maintain a watch on topics of interest.

The link checking function will allow instructors to make use of deep-links to specific resources, rather than generic services. This will be possible through the management of OpenURL conformant links within the RM.

The SSM can also be tasked to periodically check non-institutionally controlled access.

### USEFUL LINKS:

ANGEL	<a href="http://www.angel.ac.uk">www.angel.ac.uk</a>
DNER	<a href="http://www.jisc.ac.uk/dner">www.jisc.ac.uk/dner</a>
JCAS	<a href="http://www.jisc.ac.uk/jcas">www.jisc.ac.uk/jcas</a>
Sparta	<a href="http://www.jisc.ac.uk/pub00/sparta_disc.html">www.jisc.ac.uk/pub00/sparta_disc.html</a>
Shibboleth	<a href="http://middleware.internet2.edu/shibboleth">middleware.internet2.edu/shibboleth</a>
PAPI	<a href="http://www.rediris.es/app/papi/doc/TERENA-2001/">www.rediris.es/app/papi/doc/TERENA-2001/</a>
EDINA	<a href="http://www.edina.ac.uk">www.edina.ac.uk</a>

*Annotated links to many other relevant resources can be accessed via the ANGEL Technology Watch.*



## Contacts

---

### Project Manager

John Paschoud  
London School of Economics &  
Political Science  
Email: [J.Paschoud@lse.ac.uk](mailto:J.Paschoud@lse.ac.uk)

---

### Project Directors

Maureen Wade  
Deputy Librarian  
London School of Economics &  
Political Science  
Email: [m.wade@lse.ac.uk](mailto:m.wade@lse.ac.uk)

---

John MacColl  
SELLIC Director / Sub-librarian  
University of Edinburgh  
Email: [john.maccoll@ed.ac.uk](mailto:john.maccoll@ed.ac.uk)

---

### Project Contacts

Nicole Harris  
South Bank University  
Email: [harrisnv@sbu.ac.uk](mailto:harrisnv@sbu.ac.uk)

---

John Eyre  
De Montfort University  
Email: [jle@dmu.ac.uk](mailto:jle@dmu.ac.uk)

---

Peter Burnhill  
EDINA  
Email: [peter.burnhill@ed.ac.uk](mailto:peter.burnhill@ed.ac.uk)

---

Biddy Fisher  
Sheffield Hallam University  
Email: [b.m.fisher@shu.ac.uk](mailto:b.m.fisher@shu.ac.uk)

---

ANGEL is funded under the JISC 'Developing the DNER for Learning & Teaching' Programme.



## Project Partners

---

London School of Economics  
& Political Science

University of Edinburgh

De Montfort University

South Bank University

Sheffield Hallam University

EDINA

## Authenticated Networked Guided Environment for Learning

*- integrating learning  
environments with digital library  
developments -*

---

## What is ANGEL?

The ANGEL Project is creating middleware services to integrate 'open' library resources into 'closed' online learning environments and courseware portals, providing solutions to problems that are currently obstructing the fluent and free use of the full available information landscape by course instructors and learning technologists.

One such obstruction is caused by current methods for end-user authentication and management of access to licensed resources. ANGEL will address this by piloting the next generation model for authentication and authorisation, already defined by the Sparta specification agreed by the JISC Committee for Authentication & Security.

ANGEL will offer institutions greater choice, by enabling staff to use a wider variety of learning environment packages, resources and services that can be queried and managed via the ANGEL server.

---

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