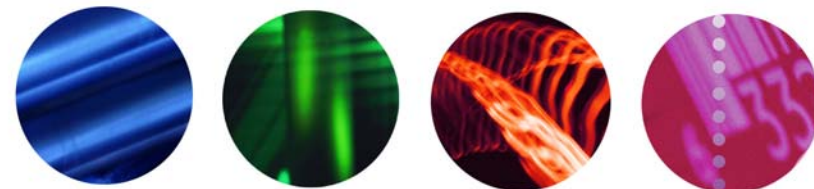


E-Learning Tools for Learners and Teachers

Town Meeting
17 June 2004

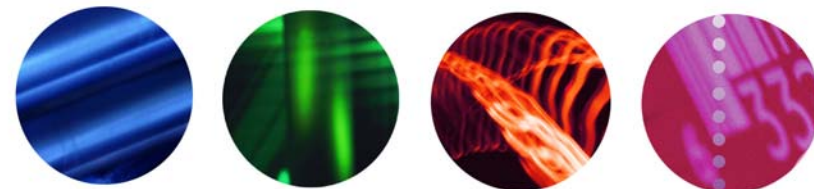


Programme

- Introduction
- Background
- Distributed e-Learning
- Technical Overview
- Bidding Process and Criteria
- Question and Answer Session
- Finish by 16:00



JISC Committee for Learning and Teaching



Supporting further and higher education

JISC activities 1999-2004

- Aims
 - To explore the concept of MLEs
 - To share effective practice
- £5 million Managed Learning Environments development programmes
 - Programmes in HE, FE, across sectors
- Awareness-raising
- Surveys and studies



Impact of MLEs on learning and teaching

- 'For most institutions, too early to explore impact on business processes or learning and teaching'*
- 'Relationship between VLE and MLE largely unexplored'
 - Integration is aimed at student and staff support through alignment of systems and data;
 - Not challenging the pedagogy.

* UCISA / JISC Survey of Managed Learning Environments, 2003



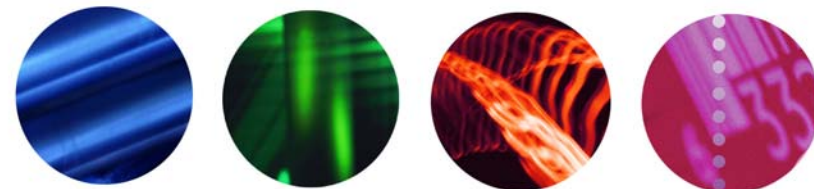
JCLT

“...develop and evaluate an e-learning technical framework to facilitate interoperability...promote the development of learning environments through a standards-based, open source approach....improve the student learning experience : widening access; aiding mobility of students between institutions; encouraging lifelong learning; ... effective use of on-line resources, learning objects and other learning and teaching materials.”



JISC e-learning programmes

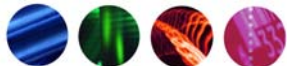
Sept 03 – August 07



Supporting further and higher education

E-Learning Programme

- The JISC Committee for Learning and Teaching (JCLT) is funding a new **e-Learning Programme** to run until August 2007.
- The Programme has four strands:
 - **e-learning and Pedagogy;**
 - **Technical Frameworks and tool;**
 - **Innovation**
 - **Distributed e-learning**
 - (MLEs for Lifelong Learning)



Programme Aims

- Identify effective approaches to e-learning practice
- Create examples of effective practice in learning, teaching and technology
- Design open standards-based e-systems to support learning and teaching
- Design innovative e-learning applications
- Enable the sharing of resources and practice across communities



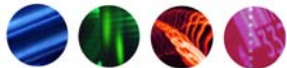
Pedagogy - Designing for Learning

- *E-learning Models Desk Study:*
 - Models of effective practice in e-learning
 - Advice and guidance for practitioners on the effective use of e-learning (Reports end July 04)
- *Research Study (Supporting Practitioners):*
 - Explore how practitioners make effective choices about e-learning and develop an understanding of how different resources support practitioners (Reports end July 04)
- *Case Studies of e-learning Practice:*
 - 20 case studies illustrating effective practice in e-learning across 14-19, FE, ACL and HE
 - 5 supporting video clips to 'inspire' and 'engage' (Due at end of July 04 and Oct 04)
- Review and evaluation of Learning Design tools
 - Review of Learning Design and current tools (end May 04)
 - Practitioner evaluation of LAMS (July 04 – April 05)



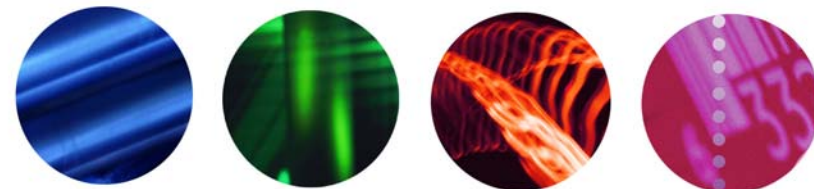
Technical Toolkits Projects

- E-Learning Technical Framework
- Toolkits projects
 - Brockenhurst College - Enterprise and Timetabling
 - Uni of Oxford (LTG) – Search + Resource List
 - Uni of Oxford/Liverpool – Personal Development Planning (PDP)
 - UK Open University – Activity management, (IMS Learning Design)
 - HE Academy/ Learning and Teaching Portal ‘Connect’ – portal services embedding
 - University of Edinburgh – Resource Discovery
 - University of Hull – Simple Sequencing + Content Packaging,
 - University of Strathclyde – Assessment (IMS Question and Test)



Distributed e-Learning Strand

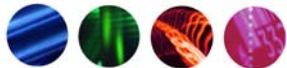
April 04 – March 06



Supporting further and higher education

Distributed e-Learning

- Funded by HEFCE Infrastructure Fund
- 2 year programme
 - Building on aims of the e-learning programme
 - Making more links between e-learning and Information Environment / middleware
 - Working with and through the HE Academy
- E-learning tools
 - Short-term technical development projects
- Repositories to support e-Learning
- Large-scale regional pilots in 2005.



Work-packages

Regional Pilots
 Year 2 Jan 05 – Mar -06

- Demonstrate how infrastructure can be used

Architectures
 Year 1 Apr 04 – Mar 05
 Year 2 Jan 05 – Mar -06

Repositories

Tools/Pedagogy

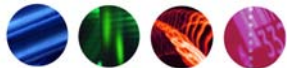
Culture/Subject

- Build infrastructure to underpin e-learning;
- Provide standards to allow interoperability;
- Provide desk-top tools that work with the infrastructure;
- Provide models of e-learning;

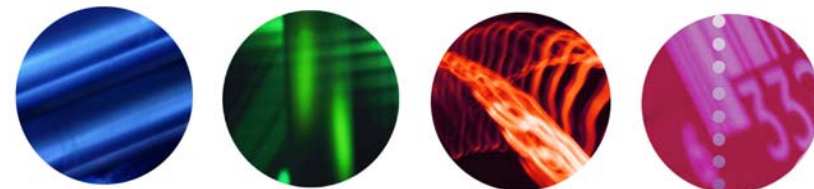


Distributed e-Learning

- This strand will seek to enable links between schools, colleges and universities
- ...encouraging progression participation into higher education (e.g. through personal development records)
- Supporting learning across organisations (e.g. foundation degrees) requires new tools and an integrated architecture...



E-Learning Tools for Learners and Teachers



Supporting further and higher education

Focus

- E-Learning Tools
 - for learners working independently (Personal Learning Environment).
 - suitable for use within an institutional context (institutional systems; Virtual Learning Environment);
 - or facilitate access and interrogate local, regional, national or international collections of resources.

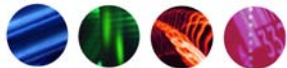


Tools for Learners

Tools for lifelong learners....

For example

- creation and management of individualised learning plans;
- e-Portfolios for presentation or Personal Development Planning;
- enable the learner Learning Designs;
- support learners in the creation and management of learning materials
- etc.



Tools for Learners

Support lifetime of learning activities.

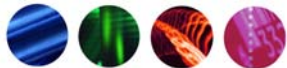
- courses, modules, classes info
- negotiate learning
- engage in learning and supporting activities
 - Planning learning
 - Task and time management
 - P2P
 - Accessing resources
 - Engaging in learning activities
 - Carrying out assignments
 - Maintain record of learning



Tools for Teachers

Used in the preparation of learning

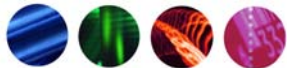
- designing learning (IMS Learning Design specification);
- content packages & upload into VLE software (building on RELOAD IMS LC Packaging Specification)
- question, test, upload to question banks (IMS QTI);
- linking external resources with VLEs;
- easy creation, manipulation and sharing of video, images and sound.



Tools for Teachers

Teacher activities..

- info on existing courses, modules, classes
- plan/collaborate with others in planning new course, modules and classes
- design activities for students using available materials and services
- find, aggregate, modify and add new resources for courses & classes
- negotiate learning programmes and activities with learners
- engage in teaching/supporting activities
- maintain own lifelong learning/continuing professional development record



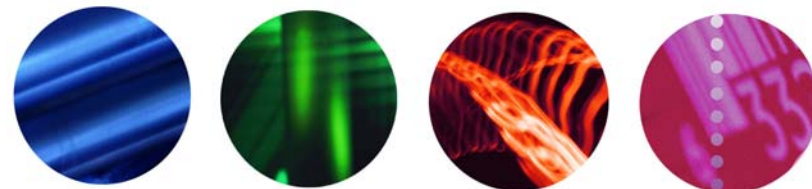
Proposals

- Proposals for both will be considered but must support learning processes as opposed to teaching processes.
- Proposals to extend or enhance currently available tools or toolsets are encouraged



Technical Overview

Bill Olivier, CETIS



Supporting further and higher education

Application & Tool Component Frameworks

“establishing common frameworks that will enable applications and services, from different sources, to work together and add up to more than the sum of the parts... developing, agreeing and standardising the technical interfaces”



Application & Tool Component Frameworks

Two broad approaches :

1. portals that support plug-in functionality on the server side, accessed through web browsers..
2. desktop application frameworks that that are extensible via plug-in components, and able to call on online services

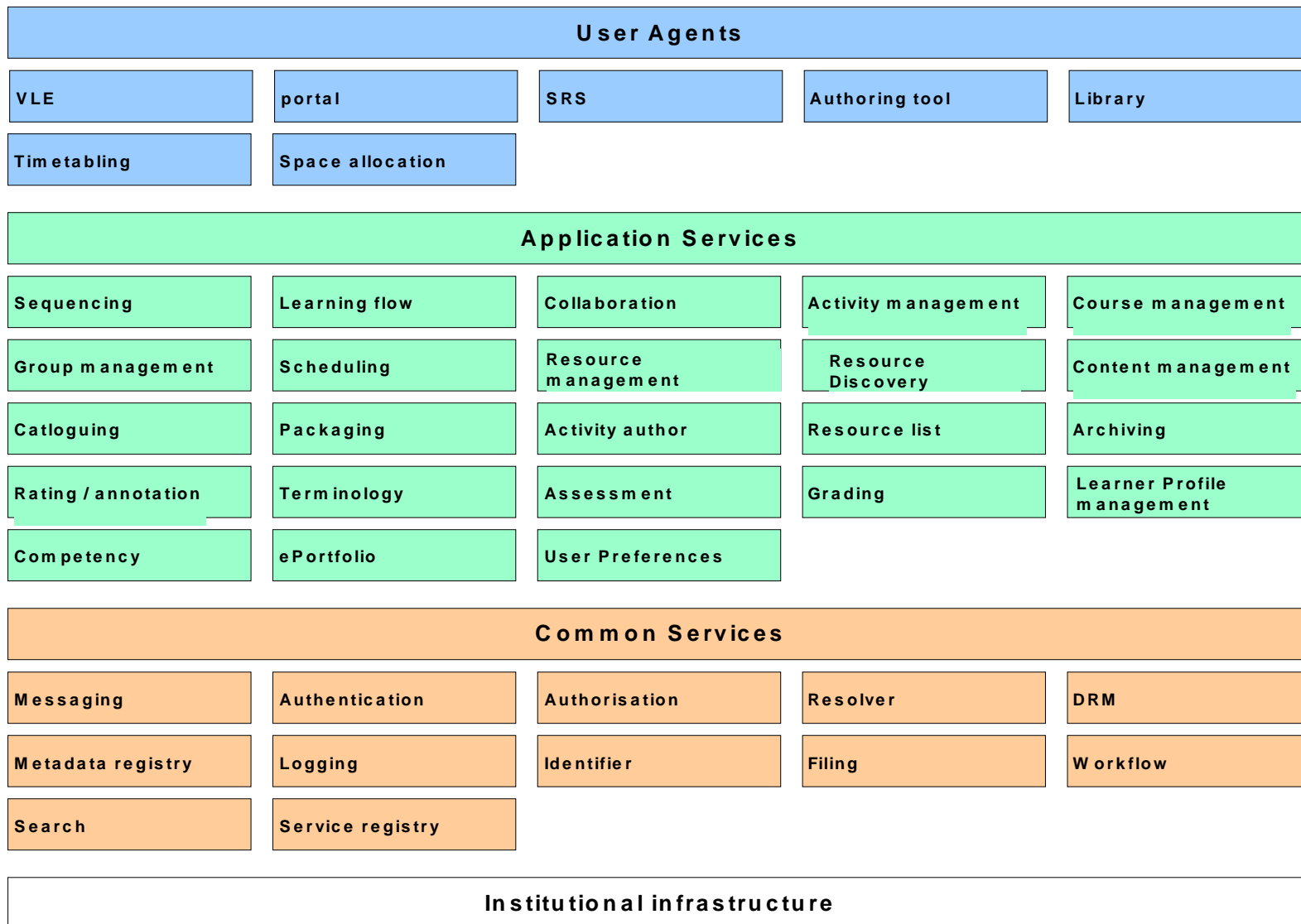


E-Learning Standards, Specifications and Architecture

- Service Oriented Frameworks Programmes (The eLearning Framework)
- eLibraries (The JISC Information Environment)
- eScience (Virtual Research Environment building on the GRID/OGSA).



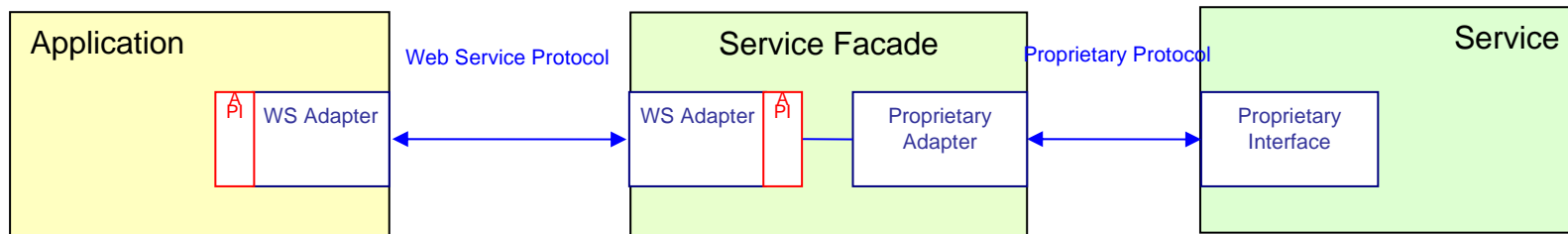
E-Learning Architecture



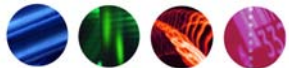
Web Services



Web Service and Web Service Client Toolkits



Web Service Toolkit used to create a Service Facade



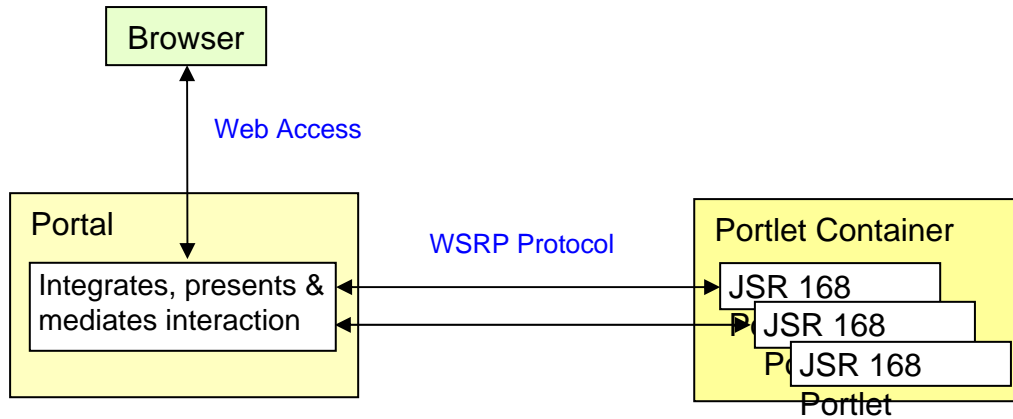
Possible Implementation Frameworks

Criteria for guidance...

- Cross Platform Portability.
- Open & eLearning Standards Aware
- Extensible Frameworks and Plug-in Platforms.
- Extendable built in Functionality and Libraries.
- Open Source.
- Reliability, scalability, modularity, adaptability, etc.



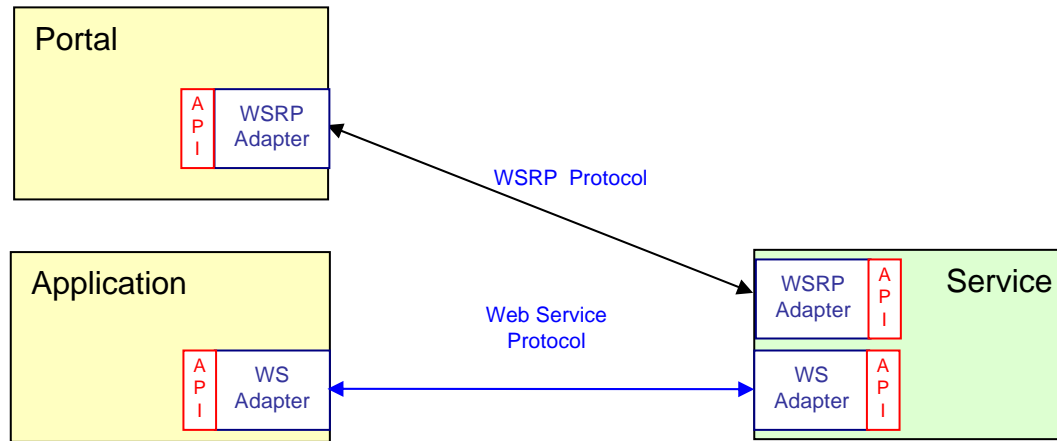
Portals, Portlets and Web-based Application Servers



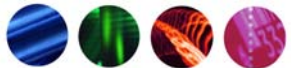
WSRP and JSR 168 working together



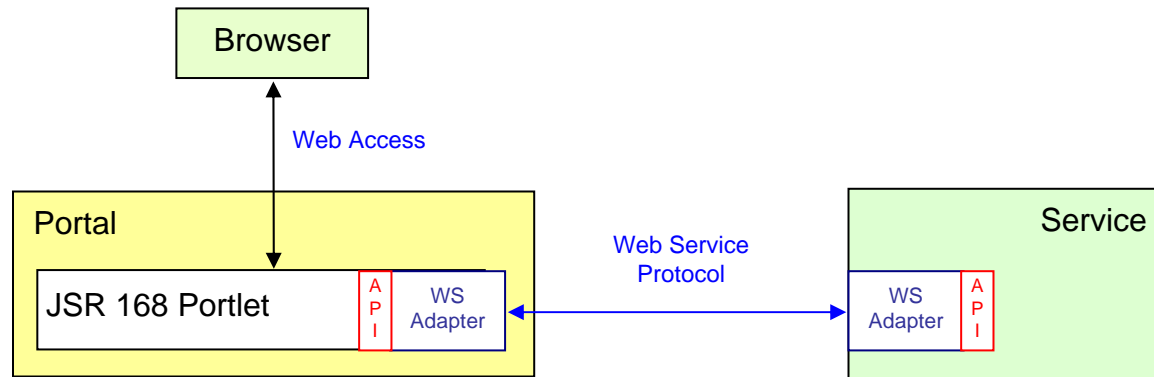
Portals, Portlets and Web-based Application Servers



Service with both Web Service and WSRP interfaces



Portals, Portlets and Web-based Application Servers



Portlet providing access to a Web Service

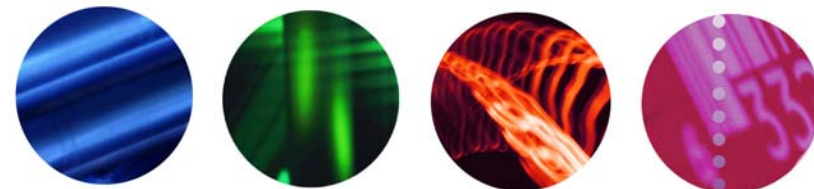


Desktop Tool and Application Frameworks

- Eclipse and NetBeans
- JSR 198
- Mozilla
- Chandler
- Jabber
- XMPP
- P2P - Groove



Bidding Process and Criteria



Supporting further and higher education

Bidding Process

- Funding total £2 million
- up to £150,000 (smaller projects welcome don't be too ambitious)
- Use headings, address criteria, page limit, append CVs, supporting letters
- 12 noon on Wednesday 30 June 2004 (email and paper)
- Start by 1 September 2004
- Deliver tools by 31 March 2005



Important Criteria

- Bidders must
 - include use cases or scenarios that articulate the learning and/or teaching context;
 - position of their deliverables with respect to the Technical Framework;
 - state how their tool meets the priority areas stated in paragraph 22;
 - include statements regarding IPR and sustainability issues.



Paragraph 22

Make effective use of public funding, areas of prioritisation might be:

1. where current tools are not based on open standards or specifications;
2. lack of available tools to support innovative practice;
3. where the current commercial or free, open source market does not support priority learning or teaching functions;
4. where the quality of current tools is generally poor;
5. where pricing models for tools put them out of the reach of the higher education community.

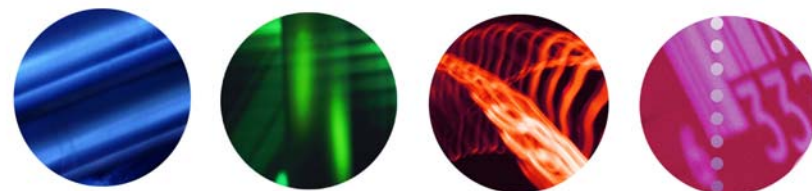


Open Source and IPR

- “All software that is developed will be expected to be made available free of charge to the education community in perpetuity and all code developed will be made available through open source models. Projects should license outputs under an Open Source agreement that promotes their reuse (e.g. LGPL for data libraries, GPL for applications).” Paragraph 30



Question and Answer Session



Supporting further and higher education

Further information

Distributed eLearning Web Page

http://www.jisc.ac.uk/programme_edistributed.html

Town Meeting Web Page

<http://www.jisc.ac.uk/elearningtools17june04.html>

