

Interim Reporting Template

Project Name	D4LD Developing for Learning Design – The Open University
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Reporting period	First
Section One: Summary	
<p>The initial stage has focused on improving performance, and some usability issues. By identifying performance bottlenecks in Coppercore an estimated 50% improvement in response times has been gained. Some improvements to the SLeD interface have been implemented. Units of Learning have been developed at Liverpool Hope, where the system is currently in use by students.</p>	
Section Two: Activities and Progress	
<p>The first objective is currently being realised, namely to provide access to LD courses for students. This has been realised by improvements to Coppercore and SLeD. The remaining two objectives cannot be met until later in the project. There is no deviation from the project plan at this stage.</p> <p>So far stages 1) and 2) of this have been completed or are in progress. This is as expected, and the trials at Liverpool Hope have already raised some issues for stage 3)</p>	
Section Three: Outputs, Outcomes and Deliverables	
<p>Both Coppercore and Sled have been upgraded during the project. These versions are currently being tested by Liverpool Hope before wider release. See http://coppercore.org and http://sled.open.ac.uk/web/index.jsp for further details. The new version of Coppercore is ready for release on sourceforge, but at the moment we are waiting to see if any further issues arise from the studies at Liverpool Hope. If not it will be released within the next month.</p> <p>CopperCore has also been strain tested by the OUNL's own test client that simulated 20 users concurrently retrieving the activity tree from CopperCore and measured a similar performance gain. With this test a problem with the original caching mechanism was discovered that led to a memory overflow in time. This caused a considerable performance decrease after running CopperCore for a while intensively. This caching mechanism has been replaced and the problem should be solved. We think that this bug is the really essential repair.</p> <p>The main improvements have been in reduced page response times in Coppercore and the ability to handle different file types in SLeD, as well as some bug fixes in both systems.</p>	
Section Four: Dissemination	
<p>Journal paper 'Learning Design and Service oriented architectures' by M Weller, P. McAndrew and M. Barrett-Baxendale accepted for Journal of Learning Design.</p> <p>Mark Barrett-Baxendale represented the project as a member of the panel on the Alt-C 2006 symposium "Design for learning: a new paradigm?"</p> <p>Two internal learning design workshops have been run at the Open University. These focused on an overview of LD, some examples based around a courtroom activity, and a demonstration of SLED.</p>	
Section Five: Evaluation	

Design for Learning Programme

Performance evaluation of Coppercore has been conducted at OUNL, using a replica of the OU and Liverpool Hope set-ups. This surfaced some set-up issues, which have been largely resolved. Performance testing with these new configurations, upgrades to JBOSS server, and bug fixes has led to approximately a 50% reduction in page response times. See appendix A – Coppercore Timings for details.

Currently further evaluation is being performed at Liverpool Hope, looking at the two key areas of usability and performance. In the area of performance the issues of how many concurrent users the system can support and delays during longer sequences will be the focus of attention. Usability evaluation will focus mainly on the SLeD interface.

Section Six: Issues and Challenges

At this stage the project is going according to plan, and so no major issues have surfaced. Although the project is split across three institutions (one in the Netherlands) regular conference calls and the use of a project wiki have maintained good communication.

The main anticipated challenge, apart from the technical ones, will be integration with other DLD projects. We have made initial contact with the Pedagogic Planner project and would welcome contact from other projects.

As yet we have no immediate support needs.

Section Seven: Support

We had a meeting with the programme team in August, and revised the project plan in light of their comments. Since then we have contacted them to gain information on some other projects which may be relevant.