



Project Document Cover Sheet

Project Information			
Project Acronym	DOULS		
Project Title	Distributed Open University Learning Systems		
Start Date	1 July 2010	End Date	31 December 2011
Lead Institution	The Open University		
Project Director	Niall Sclater, The Open University Strategy Unit		
Project Manager & contact details	Jason Platts (interim) LTS, Perry Building The Open University Walton Hall Milton Keynes MK7 6AA		
Partner Institutions	N/A		
Project Web URL	www.open.ac.uk/blogs/douls		
Programme Name (and number)	<i>E-learning programme: Distributed VLE</i>		
Programme Manager	Sarah Davies s.davies@jisc.ac.uk		

Document Name			
Document Title	Project Plan		
Reporting Period			
Author(s) & project role	Jason Platts, interim project manager		
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Document History		
Version	Date	Comments
0.1	20/07/2010	Initial Draft – J.Platts
0.2	26/07/2010	Updates after Steering Group – J.Platts
0.3	03/08/2010	Update to work packages to reflect confirmed VLE release schedule. Update to project team contact details.
0.4	09/08/2010	Final



JISC Project Plan

Overview of Project

1. Background

The Open University (OU) is the United Kingdom's only university dedicated to distance learning. It has around 150,000 undergraduate and more than 30,000 postgraduate students. The University's VLE (Virtual Learning Environment), based on the Moodle open-source software, hosts approximately 600 'live' courses and has around 100,000 students accessing it each month.

The University will be deploying Google Apps for Education to run alongside other learning systems, with services that include: email, instant messaging, contact management, calendar, shared documents, and online document creation.

The University has produced, commissioned by the Vice Chancellor and the Pro-Vice Chancellor (Learning, Teaching and Quality), a learning systems roadmap with input from key units across the University. Enhancing the VLE at the OU is fundamental to the institution's Learning and Teaching Strategy, and other strategic priorities. The roadmap has been informed by a range of personas of likely future users of the system.

A wide range of requirements from users across the institution has resulted in the selection of five key areas for learning systems innovation: personalisation, user-generated data creation, e-portfolio, Google Apps deployment and mobile provision.

To meet the required innovations specified in the learning systems roadmap there is a need to move towards a more distributed, service-oriented architecture with the ability to deliver these services via browsers and other mechanisms (such as RSS feeds) on a variety of platforms and devices. The OU infrastructure needs to migrate from its current web-delivered model to become both a consumer and provider of data services. This will enable users to interact with the VLE from within external systems and platforms such as Google Apps for Education, widgets/gadgets and mobile applications.

The DOULS project will take place within the wide-range of developments outlined in the learning systems roadmap adding functionality, features and services to meet the need for a more distributed VLE.

2. Aims and Objectives

DOULS aims to help the OU and other institutions in the JISC community progress a range of technical issues in order to move towards more distributed virtual learning environments in an informed way.

Aims

1. Enhance the OU learning systems roadmap, with applicability to other institutions wishing to develop linkages between their VLEs and external systems
2. Understand the implications for institutions and users of the provision of cloud services alongside institutional VLEs
3. Enhance several key areas of learning systems functionality, notably personalisation, user-generated content creation and e-portfolio
4. Develop the interfaces between the institutional VLE (Moodle) and externally-hosted systems such as Google Apps, iGoogle and Facebook.

Objectives

1. Explore opportunities for integration between OU learning systems and Google Apps with a view to creating e-portfolio functionality
2. Identify key areas of existing functionality in OU learning systems that could utilise a distributed approach and assess the impact of this approach on end-users
3. Identify features in the learning systems roadmap that could utilise a distributed approach and assess the impact of this approach on end-users
4. Develop, test and release services within OU learning systems to provide data to external systems
5. Develop, test and release standards-compliant applications for third-party platforms that interface with OU learning systems
6. Evaluate students, staff and other end-users experience of the solution, assessing usability and impact.

3. Overall Approach

3.1 Strategy

We will undertake a 'visioning' stage; researching the needs of end-users and investigating technical models, ensuring the solution is achievable and fit for purpose. This stage will involve input from a number of units across the university and include pedagogic, technical and usability experts.

We will utilise user-centred design, running regular sessions with end-users to assess their requirements and receive feedback on current developments. Using throwaway-prototyping techniques we will get user feedback at an early stage of development and assess if proposed solutions meet the users' needs.

We will use iterative software-development techniques, producing, testing and releasing features in a staged approach. Releases of software onto OU learning systems will align with system-wide release schedules, which occur on a quarterly basis. In parallel we will release software to the wider community using an open-source software project hosting site. All software will have associated documentation, including developer guidelines.

We will engage with the OU community through various mechanisms, including: engaging with relevant groups, running a staff workshop, using existing processes for disseminating new system features, and promoting the solution to students.

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We will engage with the external community, primarily, through the project website and JISC e-Learning Programme events. A dissemination and consultation event with the HE/FE community at the end of the project will share the final outputs, approaches, documentation, developments and ideas for the future.

3.2 Important issues to be addressed

The project will need to address the following issues:

- **Usability**

The project aims to extend the functionality of the Open University VLE to meet the needs of end-users, in particular students. The project will address this issue by involving users at all stages to ensure the functionality produced is fit for purpose.

- **Distribution of data**

The project aims to improve on the interoperability of the Open University VLE, enabling the distribution of data to external platforms. We will address this issue by identifying areas of functionality in the system that are suitable to provide distributed data, and creating external applications that interface with the distributed data.

3.3 Scope and boundaries

This project runs in parallel with a wide-scale re-development of the OU learning system and within a framework of ongoing system maintenance. The scope of the project is to update or develop functionality within the prescribed system (Moodle 2 VLE) in relation to the aims of the project; development or maintenance of non-related features or implementation of additional systems is not within scope.

The project aims to deliver a range of quality-tested applications for third-party platforms; the integration and testing of such applications outside of the context of intended usage is out of the project's scope.

3.4 Critical success factors

Critical success factors for this project include:

- new functionality is exploited by a range of OU VLE users
- Widgets, code and developer guidelines are reused by the JISC, Moodle and Google communities.

4. Project Outputs

Project deliverables will be:

- Personas and user scenarios
- Technical model
- Report on key functions, roles, activities and ICT at the OU
- Report on vision for future learning systems – based on desk research, Moodle and cloud technical investigations and evaluations, user research and internal and external consultation events – which will form the basis of a learning systems roadmap and will provide the analysis and benefits of the approach taken
- A range of open source widgets for distributed learning systems, along with code and developer guidelines to allow integration between Moodle, Google Apps and Facebook
- Associated documentation to be made available to the JISC community, fully documented and tested at scale with large numbers of students
- Regularly updated project blog to report on project progress and lessons learnt, available by RSS feed
- Internal staff workshop and final dissemination event to JISC community (subject to JISC marketing guidelines)
- Two interim 6-monthly reports and a final report incorporating an analysis of the approach taken and a case study illustrating the extent to which the original scenario was realised.

5. Project Outcomes

Benefits for users

- Interact with OU courses being studied in a variety of environments
- Availability of distributed information from the learning systems
- Enhanced usability of learning systems and student experience
- Improved personalisation of learning systems.

Benefits for the OU

- Enhancing the learning systems roadmap based on user and technical evaluations
- Platform for future re-use and re-purposing of distributed data from learning systems
- Closer integration between VLE and Google Apps will increase usage.

Benefits for the wider community

- Software developments and documentation available under open-source licence, of particular interest to institutions using Moodle
- A greater understanding of how connections can be built between the VLE and other systems to meet user requirements.

6. Stakeholder Analysis

Stakeholder	Interest / stake	Importance
Internal		
OU Learning Innovation Office and OU Learning and Teaching Solutions (LTS) Unit	Responsible for strategy, development and maintenance of learning systems	High
Learning Innovation Strategy Group	Oversee learning innovation. Will want to ensure project fits within wider strategy	High
Associate Lecturers	Potential users	Med
OU students	Primary users	High
External		
Google	Provide external services that the project intends to integrate with	Med
JISC	Providing funding	High
Related projects in the e-Learning Programme and others within the JISC community	Opportunities for sharing experiences and outcomes	Med
Moodle community	Using outputs. Potential for collaboration and feedback into core development	Med
UK HE/FE e-learning community	Using outputs	Low

7. Risk Analysis

Risk	Probability (1-5)	Severity (1-5)	Score (P x S)	Action to Prevent/Manage Risk
Staffing				
Loss of key staff during project	2	4	8	Draw on wide range of development and project management expertise at the OU
Organisational				
Lack of senior management engagement	1	4	4	The VC and the PVC-LTQ are already fully supportive of this activity
Lack of buy-in from staff and students	3	3	9	Promote the considerable advantages to learners of these developments
Technical				
Development delays	2	3	6	Ensure experienced staff and robust project management in place
Lack of feedback on the solution before the end of the project	1	4	4	Iterative prototyping, testing and reviewing will be scheduled into the plan.
Parallel developments alter in scope or are delayed	3	3	9	Ensure close collaboration between projects and address issues at an early stage.
External suppliers				
Changes to external platforms or standards	3	3	9	Keep up to date with information on platforms throughout the whole project. Use open standards where appropriate.
Changes to Google Apps or Google Gadgets Specification	3	2	6	Keep up to date with information on platforms throughout the whole project. Work closely with business areas responsible for Google implementation.
Legal				
Changes to terms and conditions of external platforms (inc Google Apps)	2	2	4	Keep up to date with information on platforms throughout the whole project.

8. Standards

Name of standard or specification	Version	Notes
(X)HTML	4	Native format for the Web.
RSS	2.0	
SOAP	1.2	Used for Web Services
REST		Architectural approach used for Web Services
HTTP	1.1	
JavaScript	ECMA-262 3rd edition	
W3C Widgets Family		Use of this standard in the project would depend on level of adoption in third-party platforms
Google Gadgets		Proprietary standard – we would utilise this instead of an open-standard in order to integrate with other Google technologies – in particular Google Apps and iGoogle
OpenSocial	1.0	Used to connect Widgets/Gadgets to OpenSocial compatible systems

9. Technical Development

The project will employ a cycle of prototyping, testing and reviewing in conjunction with user groups prior to implementation. Appropriate standards and the JISC guidelines on best practice will be adhered to throughout.

Quality Control and Audit Processes

Functional testing of the software will take place prior to each quarterly system release after specified development freezes. A period of bug-fixing and verification on acceptance systems follows before live release.

During development techniques such as build automation, profiling and unit testing will be used to ensure the quality of code produced.

Software will be tested against any utilised standards (both open and proprietary) using appropriate validation tools.

Faults identified in the software will be reported and managed using issue tracking software.

Change Control and Configuration Management Processes

The project manager and lead technical developer will work in close collaboration, reporting to the project steering group, and ensure all changes to the project are documented.

Changes to software post-development (testing and maintenance) will be reported and managed using issue tracking software.

All software will be stored using version control software on a managed server.

10. Intellectual Property Rights

IPR in all products will rest with the OU. However all code will be made available as open source under the GNU General Public License and all project documentation published as open content.

Enhancements to Moodle will be made available via the conventional Moodle contributions route (as has been the case with a very significant number of Moodle developments made by the OU over the last four years); in all other cases the software will be made available via the DOULS project website, to be available for a period of at least three years after the end of the project.

Deliverables will also be deposited in repositories as advised by JISC such as Jorum.

Project Resources

11. Project Partners

There are no partners involved with this project.

12. Project Management

Framework

The project will be managed by Learning and Teaching Solutions (LTS) in the Open University and will be executed in line with the JISC Project Management Guidelines.

The **Project Steering Group** will be responsible for monitoring the project and ensuring that work is carried out to schedule and on budget.

The **Project Director** will direct the project from a technical and methodological perspective, as well as undertake Project Quality Assurance. The project director will a) resolve strategic issues that may emerge; b) Sign off deliverables; c) Sign off quarterly reports; d) Authorise deviations and changes from Project Plan.

The **Project Manager** will coordinate and manage project work to ensure that project outputs and milestones are delivered on time and within budget. The project manager will meet regularly with the project director and lead technical developer to monitor progress and identify issues promptly.

Work package leaders will be in charge of managing the work of their respective work package ensuring milestones and deliverables are met.

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Team roles and contact details

Core Project Team

Name	Institution/Unit	Role	Time	Email
To be allocated (Interim Project Manager Jason Platts)	Open University, LTS	Project Manager	0.2 fte	tbc
Niall Sclater	Open University, Director of Learning Innovation	Project Director	8 days	n.l.sclater@open.ac.uk
Jason Platts	Open University, LTS	Lead Technical Developer	0.8 fte	j.platts@open.ac.uk
Caroline Jarrett	Effortmark Ltd	Usability expert	10 days	caroline.jarrett@effortmark.co.uk
Anne Jelfs	Open University, IET	Usability expert	18 days	a.e.jelfs@open.ac.uk
Chetz Colwell	Open University, IET	Accessibility expert	14 days	c.colwell@open.ac.uk

Steering Group members

Name	Institution/Unit	Role	Email
Gill Needham	Open University, Library	Associate Director, Information Management and Innovation	g.needham@open.ac.uk
Ross MacKenzie	Open University, LTS	Strategic Development Manager	r.a.mackenzie@open.ac.uk
Liz Burton-Pye	Open University, LIO	Developments Manager	e.a.burton-pye@open.ac.uk
Will Woods	Open University, IET	Senior Learning and Teaching Technologies Manager	w.i.s.woods@open.ac.uk

Other contributors

Name	Institution/Unit	Role	Email
Martin Weller	Open University, IET	Professor of Educational Technology	m.j.weller@open.ac.uk
Tony Hirst	Open University, MCT	Lecturer In Telematics	a.j.hirst@open.ac.uk

Training needs

The gaining of direct experience in the use of third-party platforms (i.e. Google Apps) and development for these environments is an important aspect of this project. Training needs (during the life of the project) will be met from within the resources of the project.

13. Programme Support

The project would like the JISC Programme to facilitate the identification of areas of synergy with other projects, specifically to enable the sharing of relevant experience and knowledge.

14. Budget

The Project budget is attached as Appendix A.

We expect that now the project is underway the project's spend will be in line with the budget submitted.

Detailed Project Planning

15. Workpackages

The work packages are attached as Appendix B.

16. Evaluation Plan

Timing	Factor to Evaluate	Questions to Address	Method(s)	Measure of Success
WP 5 + End of project	Level of adoption	<ul style="list-style-type: none"> How many people have adopted or are aiming to adopt the software features produced? 	Usage Statistics, surveys, focus group meetings.	<ol style="list-style-type: none"> Adoption by end-users. End-user buy-in to solution.
During WP 3 + 4 +5	User satisfaction	<ul style="list-style-type: none"> Does the solution satisfy user needs? What improvements or enhancements would increase/improve their experience so far? Would users find benefit in having the solution available within their other platforms? 	Usability evaluation, usage statistics, surveys, focus group meetings.	<ol style="list-style-type: none"> 75% of users would continue to use the solution. Users feel engaged and provide suggestions for improvement.
End of WP 3 +4 + end of project	Technical robustness, interoperability with existing OU systems and third-party platforms.	<ul style="list-style-type: none"> What lessons can be learnt from the implementation of the solution? Is the solution transferable to other systems and learning environments? 	Technical testing, analysis of user requests for technical support (incl. outcomes).	<ol style="list-style-type: none"> Full interoperability of the solution with existing OU systems. Technology fit with the requirements of users.

17. Quality Plan

Output	Project Plan				
Timing	Quality criteria	QA method(s)	Evidence of compliance	Quality responsibilities	Quality tools (if applicable)
Within a month of starting the project	Project plan signed off by all stakeholders.	Review of plan	Project plan written and agreed / Signed off	Project Manager Steering Group	JISC project Plan template. Feedback comments.

Output	Report on vision for future learning systems				
Timing	Quality criteria	QA method(s)	Evidence of compliance	Quality responsibilities	Quality tools (if applicable)
Dec 2010	All outputs that feed into report complete. Report contains sufficient detail to support generation of development plan.	Review of report against objectives.	Report signed-off. Development plan can be written.	Steering Group	

Output	Open source widgets for distributed learning systems				
Timing	Quality criteria	QA method(s)	Evidence of compliance	Quality responsibilities	Quality tools (if applicable)
Jun 2011 + Dec 2011	Features meet users-needs. Software meets accessibility requirements. Software conforms to relevant standards.	Usability testing. Functional testing. Accessibility testing. Test against standards.	No issues reported from testing. Software meets project objectives.	Project Manager Technical Developer	Standards validation tools.

Output	Final Report				
Timing	Quality criteria	QA method(s)	Evidence of compliance	Quality responsibilities	Quality tools (if applicable)
Dec 2011	Project final report signed off by all stakeholders.	Review of report	Project report written and agreed / Signed off	All stakeholders	JISC project report template. Feedback comments.

18. Dissemination Plan

Timing	Dissemination Activity	Audience	Purpose	Key Message
July 2010	Set up and maintain project website. To include project documentation/reports, updates on progress etc.	Internal community. Moodle community. JISC and HE community.	Awareness Inform Engage Promote	Project information, invitation to get in touch and share experience/knowledge.
Dec 2010	Staff workshop	OU staff	Inform Engage Promote Obtain feedback	Project information, demonstration.
As per JISC calendar	Programme / cluster meetings (presentations, demonstrations, workshop participation etc.)	JISC, other projects.	Inform Engage Promote	Project information, sharing of knowledge and experience.
Nov 2011	Dissemination event	JISC community	Inform	Project information, demonstration, sharing of knowledge and experiences.
Dec 2011	Analysis and case study provided in final report.	JISC community	Inform	Project information, demonstration, sharing of knowledge and experiences.

19. Exit and Sustainability Plans

Project Outputs	Action for Take-up & Embedding	Action for Exit
Project website	Effective dissemination with JISC and the education community.	Maintain for at least 3 years
Report on vision for future learning systems (inc Technical report, Report on key functions, roles, activities and ICT at the OU and Personas)	Effective dissemination with JISC and the education community.	Ensure final version is on the Project website.
Open source widgets for distributed learning systems	Effective dissemination with JISC and the education community. Promote to other appropriate communities e.g. Moodle.	Ensure final version is on the Project website. Ensure accompanying documentation is provided. Release under open-source licence. Ensure code will work outside of OU environment.
Case study and project analysis	Effective dissemination with JISC and the education community.	Ensure final version is on the Project website.

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Project Outputs	Why Sustainable	Scenarios for Taking Forward	Issues to Address
Open source widgets for distributed learning systems	Have the potential to be of use to the wider HE community.	Make the solution available via the project website. Disseminate widely. Form a community of interest using an appropriate network (e.g. Google Code/Groups, Moodle web site).	<p>Quality – code released must validate against standards.</p> <p>Code must work (with little modification) outside of OU environment. Need alternate test environment.</p> <p>Maintenance – Will future developments be undertaken by OU or community; will OU adopt community updates?</p>

Appendixes

Appendix A. Project Budget

Directly Incurred Staff	August 09– July 10	August 10– July 11	August 11– July 12	TOTAL £
Technical Developer - J Platts GR8 30 hours/week 0.8 FTE	██████	██████	██████	██████
Total Directly Incurred Staff (A)	██████	██████	██████	██████
Non-Staff				
Travel and expenses	██████	██████	██████	██████
Hardware/software	█	█	█	█
Dissemination	█	██████	██████	██████
Evaluation	█	█	█	█
Other	██████	██████	██████	██████
Total Directly Incurred Non-Staff (B)	██████	██████	██████	██████
Directly Incurred Total (A+B=C) (C)				
Directly Allocated				
Staff	█	█	█	█
N Sclater GR9 8 days	██████	██████	██████	██████
A Jelfs GR8 18 days	█	██████	██████	██████
C Colwell GR8 14 days	█	██████	██████	██████
PM (TBA) GR8 0.2FTE (1 day/wk)	██████	██████	██████	██████
Estates	██████	██████	██████	██████
Other	█	█	█	█
Directly Allocated Total (D)	██████	██████	██████	██████
Indirect Costs (E)				
Total Project Cost (C+D+E)	██████	██████	██████	██████
Amount Requested from JISC	██████	██████	██████	██████
Institutional Contributions	██████	██████	██████	██████
Percentage Contributions over the life of the project				
		JISC 61 %	Partners 39 %	Total 100%

Appendix B. Workpackages

WORKPACKAGES	Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12
1: Organisation																			
1.1 Develop detailed project plan																			
1.2 Setup website																			
1.3 Finalise external contract																			
1.4 Setup Steering Group																			
1.5 Steering Group meetings																			
1.6 JISC Project Reports																			
1.7 Project Progress Monitoring and Reporting																			
1.8 Dissemination event to JISC community																			
1.9 JISC Final Project Reports																			
2: Vision																			
2.1 Undertake Desk research																			
2.2 Develop User scenarios																			
2.3 Technical investigation																			
2.4 Usability research																			
2.5 Prototype development + user testing																			
2.6 Produce Development Plan																			
2.7 Preparatory development																			
2.8 Software testing																			
2.9 Staff workshop																			
3: Development 1																			
3.1 Software development																			
3.2 Usability testing																			
3.3 Software testing + release																			
3.4 Documentation																			

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WORKPACKAGES	Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12
4: Development 2																			
4.1 Review																			
4.2 Software development																			
4.3 Usability testing																			
4.4 Software testing + release																			
4.5 Documentation																			
5: Development 3																			
5.1 Review																			
5.2 Software development																			
5.3 Usability testing																			
5.4 Software testing + release																			
5.5 Documentation																			

Project start date: 01/07/2010

Project completion date: 31/12/2011

Duration: 18 months

Workpackage and activity	Earliest start date	Latest completion date	Outputs (clearly indicate deliverables & reports in bold)	Milestone	Responsibility
WORKPACKAGE 1: Organisation <u>Objectives:</u> Project Management, planning and progress reporting. Disseminate the project outputs and outcomes to the JISC and the wider education community.	July 2010	Dec 2011			
1.1 Develop detailed project plan	July 2010	July 2010	Project Plan (including an evaluation plan, QA plan, Dissemination Plan, Exit/Sustainability Plan, Workpackage details and Budget) submitted in early August 2010. Tasks to be continually reviewed and updated throughout the project. JISC Website Template submitted	1	PM
1.2 Setup website	July 2010	July 2010	Project Website setup and populated with project details. Editing permission assigned to relevant members of project team.		PM
1.3 Finalise external contract	July 2010	July 2010	Contracts signed		PM
1.4 Setup Steering Group	July 2010	July 2010	Initial Steering Group Meeting. Agreement on frequency of following meetings.		PM + NS
1.5 Steering Group meetings	July 2010	Dec 2011	Steering Group meetings take place.		PM + NS
1.6 JISC Project Reports	Dec 2010 June 2011	Dec 2010 June 2011	1st Project report 2nd Project report		PM
1.7 Project Progress Monitoring and Reporting	Jul 2010	Dec 2011	Frequent project meetings.		PM
1.8 Dissemination event to JISC community	Nov 2011	Nov 2011	Organise/attend event.		PM
1.9 JISC Final Project Reports	Nov 2011	Dec 2011	Final Report submitted to JISC (draft submitted 1 month before end date). Completion Report submitted to JISC.	6	PM
Workpackage and activity	Earliest	Latest	Outputs	Milestone	Responsibility

	start date	completion date	(clearly indicate deliverables & reports in bold)		
WORKPACKAGE 2: Vision <u>Objectives:</u> Explore opportunities for integration between OU learning systems and Google Apps with a view to creating an e-portfolio solution Identify key areas of existing functionality in OU learning systems that could utilise a distributed approach and assess the impact of this approach on end-users Identify features in the learning systems roadmap that could utilise a distributed approach and assess the impact of this approach on end-users Evaluate students, staff and other end-users experience of the solution, assessing usability and impact.	Aug 2010	Dec 2010			
2.1 Undertake Desk research Investigation into: potential uses of distributed learning systems, other institutions use of distributed learning, internal developments in this area.	Aug 2010	Oct 2010	Report on key functions, roles, activities and ICT at the OU. Report on investigation into distributed learning systems.		NS + PM
2.2 Develop User scenarios	Aug 2010	Mid Nov 2010	Personas and user scenarios updated to reflect outcomes from 2.1. Dependencies: 2.1		CJ
2.3 Technical investigation	Aug 2010	Mid Nov 2010	Technical Model - report on possible technical approaches and potential issues.		JP
2.4 Usability research	Sep 2010	Mid Nov 2010	Usability/accessibility plan. Sessions with end-users scheduled.		CJ, AJ, CC

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2.5 Prototype development + user testing	Mid Nov 2010	Mid Dec 2010	Prototype for user testing and evaluation. Dependencies: 2.1, 2.2, 2.3, 2.4		JP
2.6 Produce Development Plan	Dec 2010	Dec 2010	Report on vision for future learning systems – based on outcomes from 2.1-2.5. Development Plan (based on <i>Report on vision for future learning systems</i>) – List of developments that will be undertaken in Phase 1 & 2. Dependencies: 2.1, 2.2, 2.3, 2.4, 2.5	2	PM
2.7 Preparatory development	Sep 2010	Dec 2010	Development of systems in preparation for following phases.		JP
2.8 Software testing	Dec 2010	Dec 2010	Issue log		JP
2.9 Staff workshop	Dec 2010	Dec 2010	Staff workshop organised. Actions/Notes from workshop.		PM

Workpackage and activity	Earliest start date	Latest completion date	Outputs (clearly indicate deliverables & reports in bold)	Milestone	Responsibility
<p>WORKPACKAGE 3: Development 1</p> <p><u>Objectives:</u> Develop, test and release services within OU learning systems to provide data to external systems</p> <p>Develop, test and release standards-compliant applications for third-party platforms that interface with OU learning systems</p> <p>Evaluate students, staff and other end-users experience of the solution, assessing usability and impact</p>	Jan 2011	June 2011			
3.1 Software development	Jan 2011	April 2011	Development of services and applications identified in <i>development plan</i> . Dependencies: 2.6		JP
3.2 Usability testing	Jan 2011	June 2011	Monthly sessions with end users. Outcomes reported to project team.		CJ, AJ
3.3 Software testing + release	April 2011	June 2011	Issue log from result of functional, usability and accessibility testing. Updated software ready for release. Release of Widgets into OU system and made available to community. Dependencies: 3.1	3	JP, CC
3.4 Documentation	April 2011	June 2011	Documentation (testing, end-user and developer) to accompany software release. Dependencies: 3.3		JP
Workpackage and activity	Earliest	Latest	Outputs	Milestone	Responsibility

	start date	completion date	(clearly indicate deliverables & reports in bold)		
WORKPACKAGE 4: Development 2 <u>Objectives:</u> Develop, test and release services within OU learning systems to provide data to external systems Develop, test and release standards-compliant applications for third-party platforms that interface with OU learning systems Evaluate students, staff and other end-users experience of the solution, assessing usability and impact	May 2011	Sep 2011			
4.1 Review	May 2011	June 2011	Review of Development 1 work. Update of <i>Development plan</i> .		PM
4.2 Software development	May 2011	July 2011	Development of services and applications identified in <i>development plan</i> . Dependencies: 2.6, 4.1		JP
4.3 Usability testing	July 2011	Sep 2011	Monthly sessions with end users. Outcomes reported to project team.		CJ, AJ
4.4 Software testing + release	July 2011	Sep 2011	Issue log from result of functional, usability and accessibility testing. Updated software ready for release. Release of Widgets into OU system and made available to community. Dependencies: 4.2	4	JP, CC
4.5 Documentation	July 2011	Sep 2011	Documentation (testing, end-user and developer) to accompany software release. Dependencies: 4.4		JP
Workpackage and activity	Earliest start	Latest completion	Outputs (clearly indicate deliverables & reports	Milestone	Responsibility

	date	date	in bold)		
WORKPACKAGE 5: Development 3 <u>Objectives:</u> Develop, test and release services within OU learning systems to provide data to external systems Develop, test and release standards-compliant applications for third-party platforms that interface with OU learning systems Evaluate students, staff and other end-users experience of the solution, assessing usability and impact	Aug 2011	Dec 2011			
5.1 Review	Aug 2011	Sep 2011	Review of Development 2 work. <i>Update of Development plan.</i>		PM
5.2 Software development	July 2011	Oct 2011	Development of services and applications identified in development plan. Dependencies: 2.6, 5.1		JP
5.3 Usability testing	Oct 2011	Dec 2011	Monthly sessions with end users. Outcomes reported to project team.		CJ, AJ
5.4 Software testing + release	Oct 2011	Dec 2011	Issue log from result of functional, usability and accessibility testing. Updated software ready for release. Release of Widgets into OU system and made available to community. Dependencies: 5.2	4	JP, CC
5.5 Documentation	Oct 2011	Dec 2011	Documentation (testing, end-user and developer) to accompany software release. Dependencies: 5.4		JP

PM – Project Manager
NS – Niall Sclater

Project Acronym: DOULS
Version: 0.4
Contact: Jason Platts
Date: 09/08/2010

JP – Jason Platts
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