

# JISC Progress Report Template

## Overview of Project

### 1. Grant Statement

I confirm that the project is being conducted under the terms agreed with JISC in the letter of grant and the JISC Terms and Conditions attached to it.

The proposed WSRP producer extension to the project was delayed pending the outcome of wider discussions about the development of uPortal version 3.0, to ensure that the WSRP work fitted in with this. The development path for version 3.0 has now been agreed and a project plan for the WSRP producer work is being finalised for submission.

### 2. Aims and Objectives

There have been no changes to the original aims/objectives outlined in the project plan.

The following areas of work were scheduled to take place during the reporting period:

#### a. *Initial Literature Review*

This was delayed from the previous reporting period due to the lack of staffing time to carry out this task. The work was subsequently split between the project manager and a sub-contracted researcher. An initial version of the literature review was written and has been used to inform the project's subsequent work. The review was not considered complete enough to be released as a deliverable, though. It is intended to publish this initial literature review as part of the final and fuller literature review to be completed by the end of the project.

#### b. *Carry out survey and analyse results*

The online survey was launched on 8<sup>th</sup> September and ran for six weeks. It was publicised via a number of JISCmail lists as well as through relevant websites and at project partner institutions. Over 4500 responses were received. 2500 of these came from Oxford where publicising the survey via the webmail login page proved a huge success. Because of this bias in the number of results to one institution, the results have been analysed in two sets: Oxford and the rest of the country (the remaining 2000 responses). The analysis of results will be released shortly.

#### c. *Establish criteria for focus groups, run focus groups, and analyse results*

Criteria for the focus groups were developed and agreed between project partners in September 2004. The focus groups themselves were run in November and December 2004 at the University of Hull, University of Oxford and Newark and Sherwood College. Eleven groups were held in total, involving over 60 people, and included an online focus group using one of the VLEs at the University of Hull. The notes and findings from the groups are currently being compiled and will be released shortly.

#### d. *Development of JSR 168 and WSRP portlet toolkits based on the JAFER, GetRef, HEIRPORT and Google search tools and refinement of these on the basis of experience and testing*

All technical development project partners have delivered the agreed JSR 168 portlets and these have been installed at the University of Hull. WSRP adaptations of these have been delivered for JAFER and HEIRPORT, whilst development of the others is ongoing. Initial versions of the portlets have been refined and have made use of XSLT to enhance the look and feel of the portlets for easier use. Development will be ongoing for the remainder of the project.

### 3. Overall Approach

There have been no changes to the overall approach taken by the project. The past six months have been extremely active for the project and a large number of project plan targets have been reached.

The project is slightly behind in its own original timetable, but is on track to complete the work as stated.

The proposed extension work to develop WSRP producer capability within uPortal will complement the technical development part of the project well. Although the initial investigation of portlet standards by project partners favoured using JSR 168 in the first instance, the trend appears to be favouring WSRP as the long-term standard of choice due to the increased flexibility this offers in delivering remote services through a portal. Having WSRP producer capability within uPortal will enable this to be carried out more easily.

The project has also seen a number of other initiatives making use of the portlet standards within the UK, and which are being investigated for use within the user testing phase of the project: the Connect and Go-Geo! portals have developed WSRP access to their services, though hoped for development of SPP services using JSR 168 does not appear to have materialised. The existence of these will enable a wider range of user testing to take place within CREE and we are grateful to those involved for agreeing and being willing to work together on this.

In relation to the tools being adapted within CREE, analysis of the functionality of GetRef and GetCopy suggested that they would be better included within the same portlet as opposed to the original plan of developing individual portlets for these two services. This highlights the close relationship these two tools have always had. As such, the GetCopy functionality is still to be fully included and is being considered part of the refinement of the GetRef portlet rather than a separate development.

#### 4. Project Outputs

The following outputs have been either completed or are in progress at this time:

Deliverable	Name	Status
S1D1	Initial Literature Review	In draft and used internally within the project – to be published with S1D12
S1D4	Criteria for focus groups	Completed
S1D8	Focus group results analysis	Ongoing – completion 18 <sup>th</sup> March 2005
S1D9	Survey results analysis	Ongoing – completion 18 <sup>th</sup> March 2005
S2D1	Summary investigation JSR 168/WSRP	Completed
S2D2-5	Initial investigation of JSR 168 and WSRP for existing toolkits	Completed
S2D7	Extended study of using JSR 168 and WSRP for existing toolkits	Ongoing – completion 18 <sup>th</sup> March 2005
S2S1-4	Adapted tools and toolkits using JSR 168 and WSRP	Completed, with some remaining WSRP adaptation to take place
S2S1i-4i	Refined tools and toolkits using JSR 168 and WSRP	Ongoing to end of project

An article on the CREE project was published in Ariadne Issue 41, October 2004 (see <http://www.ariadne.ac.uk/issue41/awre-cree/>)

The Google and JAFER portlets were demonstrated at the EDUCAUSE Conference, 19-22<sup>nd</sup> October 2004

A presentation on the CREE project was given at the JA-SIG Winter Conference, 6-7<sup>th</sup> December 2004 (see <http://www.hull.ac.uk/esig/presentations.html>)

The CREE portlets were demonstrated at the Sakai Educational Partners Program (SEPP) Conference, 8-10<sup>th</sup> December 2004

A project meeting was held on 11<sup>th</sup> February 2005.

The CREE project website is available at <http://www.hull.ac.uk/esig/cree/>

## 5. Project Outcomes

*Summarise achievement against objectives, list outcomes and findings to date, and any interim conclusions.*

The past six months have seen a large amount of activity within the project as the initial investigations have been fed into practical work.

On the technical development front, initial JSR 168 versions of the portlets for the tools being adapted within the project were delivered and all shown to work within a test uPortal installation at the University of Hull. Work by Matthew Dovey at the University of Oxford to adapt JAFER for use with WSRP have led to the development of an instruction set for anyone wishing to adapt their JSR 168 portlets for use with WSRP (see <http://www.oucs.ox.ac.uk/portal/developers/environment.xml>). This has been used successfully by the ADS for their HEIRPORT tool and, outside the project, the Connect team. This process relies on the use of WSRP4J, an Apache initiative for presenting Java-based tools using WSRP. This toolkit was always meant as a reference implementation and not a production standard. im+m will be contacting the Technical Committee behind WSRP4J to assess its ongoing development and encourage further work on stabilising the toolkit.

As mentioned above, the only major change to the project has been to incorporate the GetCopy functionality within the GetRef portlet. The close association of the two tools makes this a logical step forward. The use of authentication within the GetRef portlet has not been pursued within the project, and the test environment hardwires in a local profile and ATHENS username. A local profile has been developed for Hull and will be shortly for Oxford. The Google portlet has generated some interesting and valuable correspondence within Google themselves.. It is currently unclear how they view the use of the portlet more widely and discussions are ongoing to assess this.

The existing CREE test environment can be seen at [http://www.hull.ac.uk/esig/cree/portal\\_login.html](http://www.hull.ac.uk/esig/cree/portal_login.html) (login using staff and staff), though please note this is subject to alteration during the development of demonstrators for user testing.

Overall, the use of the portlet standards has been very successful. With the use of new technology there have been and continue to be some minor hiccups and delays, but the portlet standards have provided us with working tools that can be used to test user reaction to their presentation within different environments. Notwithstanding this, there have been some minor reservations about adapting tools that were not Java-based and adapting existing tools that were not written to take the requirements of the portlet standards into account. All project partners have been asked to assess how their portlets might be used in a service environment as opposed to the test environment within the project. It is clear, though, that some will be easier to run than others in this capacity.

The user requirements work has run in parallel with the technical development during the reporting period. The survey carried out in September and October 2004 was extremely successful. This has been largely put down to a combination of three factors: the publicity used (extensive and via a range of email lists and relevant websites); the incentive on offer (an iPod); and the timing (September and October being when people are getting up and running with the academic year and happy to try new things such as a quick survey). The latter will be tested when the revised survey is run later in the project.

The survey itself provided a valuable body of data on which the project has been able to plan focus groups and user testing. Key outcomes from the survey showed extensive use of search tools in learning, teaching and research and a general curiosity about how these might be presented through a VLE or other context. There was some uncertainty about this, though, based on not being able to see what it would offer; the user testing will help to address this and provide a comparable set of data.

The focus groups were also very successful. The people attending, though self-selecting, offered a wide range of views, and generally backed up the findings of the survey whilst providing some reasoning behind the findings. An unexpected outcome was the running of an online focus group based around a group of distance learning students. The process, run through the VLE at Hull as a discussion group with a set of questions, worked well, albeit that the findings were not much different to the other groups. It is planned to use this facility again in future work. The focus groups were also

very successful at Oxford, and have sparked a general interest in their use for other systems being launched by the Computing Services there.

In summary, the project has progressed well and produced a wide range of outputs and data. These need to be packaged for release to the community and used effectively for the remainder of the project to assist the user testing. The work so far has provided us with a good springboard towards this.

*How do you see the project developing? Has progress changed the project in any way, and are there implications for the programme?*

The project is developing as planned originally. On the technical front we now have the portlets available to use within user testing. Although some stability in version is required for the user testing, development will be ongoing and will investigate further the difficulties faced in developing portlets as well as further functionality that could be included within them. This experience will be written up as a final deliverable from the project. Progress has changed the development priorities for the GetRef portlet, though other portlets have been developed as expected. The major implications for others developing portlets are the recognition that it is additional work needing careful consideration for the service model being used, and that a detailed assessment has to be carried out on the applicability of the portlet standards to individual tools – there is no guarantee that everything can be adapted or adapted easily.

The user requirements work has produced a body of data far beyond what was expected in terms of numbers or breadth of responses. This has given validity to the ongoing work and the basis upon which this will be carried out. The use of a survey backed up with focus groups has proved a successful model and one that will be used again in the future.

For the demonstrators, the technical development work has provided a range of tools that can be used. The demonstrators will be based around a selection of tools from the project and outside it, according to what is available and to create a range of different environments. Demonstrators based on a flat webpage and a portal will be interactive. A series of screenshots based on a VLE, using the Sakai framework, will be used to test reaction to this environment – an interactive demonstrator will not be possible at this early stage of Sakai's development. However, this is more than was originally hoped for, as no other VLE framework would have allowed even screenshots to be developed using the standards available.

*What lessons have been learned that could be passed on to other projects or applied elsewhere?*

See above for a number of the lessons learnt by the project. Technical development has always suffered from delays to some extent due to the novelty of the work being carried out. However, staging the work as has been done within the project has enabled effective and timely development to take place. It remains to be seen where the portlets go by the end of the project, but they will be in a good position to be used in other projects and contexts. The experience of the developers and their expertise will also be of interest.

The user requirements work has clearly demonstrated the value of the survey and particularly the use of focus groups in gathering and verifying information. Greater use of these is advocated within other projects where relevant.

## **6. Stakeholder Analysis**

The interaction with users through the survey and focus groups has proved extremely valuable and raised the profile of the project considerably. It is hoped this interaction will prove as successful during user testing sessions with the demonstrators. Users have been very willing to share their views, with more than one thanking us for asking, and this has been welcome.

A presentation at the JA-SIG Winter Conference has helped to raise the profile amongst the uPortal community. A recent presentation at the JA-SIG UK meeting is extending this to the UK uPortal community. im+m organised a series of meetings between Matthew Dovey and digital library specialists in Washington DC in December 2004 and this proved extremely valuable (the notes will be

available via the CREE website shortly) in engaging this sector. Further such meetings are being planned. The University of Hull's membership of SEPP has also raised the profile of CREE within this community and the possibility of the outputs being used within Sakai. This connection is being pursued.

As indicated above, all technical development partners are being asked to consider the implications of serving their portlet as a service rather than just for testing purposes within CREE. This assessment will take into account the user and service provider requirements involved.

## **7. Risk Analysis**

Staffing – the use of a sub-contractor to carry out some of the work originally planned for the researcher post has been successful. The work on the literature review and focus groups has been split accordingly, and the arrangement will be extended to the user testing and other reports to be completed. There has been an increased risk during the latter half of the reporting period of the project manager's time commitment being reduced due to other activities, but this is being managed accordingly and will be adjusted in the coming weeks. Staff changes at im+m have impacted only slightly on their work and this is progressing well. Time commitments at the University of Oxford have impacted the technical development work there, though this was well advanced beforehand and has not affected use of the portlets. Ongoing development and time committed to this is currently being addressed.

Technical – the use of the portlet standards has been successful, thereby reducing this risk considerably. The remaining risk centres around the incorporation of the GetCopy functionality within the GetRef portlet (medium) and the development of advanced functionality as agreed (low). There is also a risk that the development of the demonstrators will not be possible as planned. A wide range of demonstrators has been scoped and it is hoped that enough will be technically feasible to enable effective user testing. This is a medium risk.

## **8. Standards**

There have been no changes to the standards being used within the project. The interest in SRW remains, but has yet to be fully tested. Greater information is also being sought regarding the WSRP4J toolkit and its development as this will impact on the long-term use of the CREE portlets. It is noted that WSRP version 2.0 will be released during 2005, and this development will be watched carefully.

## **9. Technical Development**

The version of uPortal to be used within the demonstrators will be 2.4. Sub-versions of this are also being investigated as they are issued to assess compatibility of the portlets across them. The Sakai framework will be used to generate the VLE screenshots, though it is not stable enough at Hull yet to run an interactive demonstrator.

## **10. Intellectual Property Rights**

The IPR generated by the project in the toolkits being developed remains with the toolkit owner as described in the CREE consortium agreement. Discussions on the IPR requirements of using the Google portlet extensively are ongoing.

## ***Project Resources***

### **11. Project Partners**

*Explain any changes to the institutional project partners or subcontractors, and any impacts this has/will have on the project or schedule.*

There have been no changes to project partners or subcontractors. The use of the survey by the ADS for use within the HEIRNET consortium has been delayed until April 2005, though it still hoped that they will be able to compare and contrast the results of this with the overall CREE survey by the end of the project. The WSRP producer work, once finalised, is still scheduled to be completed by im+m and has been scheduled accordingly.

*What other institutions or organisations are you or do you plan to collaborate with?*

In looking at other developments within the sector for tools that might be usable within the CREE user testing sessions, the following have emerged as viable candidates:

- Connect, using their WSRP connection
- Go-Geo!, using their WSRP connection
- zetoc, using its SOAP interface

The use of MDC and D+ has not been possible. The possibility of searching a DSpace repository using the JAFER SRW client is still be investigated, and may result in a connection with the University of Cambridge.

## **12. Project Management**

There have been no changes to the project management during the reporting period. The combination of roles as project manager and researcher has placed strains on the time commitment possible due to other activities. However, this is being managed and will be adjusted accordingly in the coming weeks.

## **13. Programme Support**

*Summarise contact with/influence of the programme, e.g. with the programme manager, formal or informal links with other projects, or programme-related activities.*

The project manager and director attended the JISC e-learning conference in Oxford in November 2004. Informal contact with the programme manager has taken place during the reporting period and a visit is planned for 25<sup>th</sup> February 2005. See above for links to other projects.

*What further support would you like from the programme, e.g. guidance, workshops, etc?*

On the basis of experience within the project, training sessions on the use of focus groups are suggested as being useful for all projects where there are user requirements (which is most!).

## **14. Budget**

*Use the budget template to report expenditure against and attach as Appendix A. Explain the reasons for any significant overspend or underspend.*

See attached.

## **Detailed Project Planning**

### **15. Workpackages**

*Report progress against plan, noting key activities during the reporting period. Explain why any targets haven't been met.*

#### Workpackage 1: Desk-based research

The initial literature review (Deliverable S1D1) was split into two halves, technical and user-based, and assigned to the project manager and sub-contractor accordingly. The work was carried out

during September and October 2004. A draft version of the literature review has been prepared, but this has not been developed into a final document for publication due to time pressures. It is intended that the literature review already carried out will be merged with the final literature review towards the end of the project and published as a complete document at that time.

#### Workpackage 2: Online survey

The online survey was carried out during September and October 2004, resulting in over 4500 responses from across Higher and Further Education institutions. The responses have been analysed and this analysis will be published shortly (S1D9). Separate analyses have been carried out by Oxford and Hull because of the large number of responses gained at Oxford. Unfortunately, much of the user data from the Oxford responses was lost in processing the results database, which limits but does not negate the results from this dataset.

#### Workpackage 3: Focus groups

Criteria for the focus groups (S1D4) were established between project partners. Eleven focus groups were subsequently held (6 staff, 5 student) at Hull, Oxford and Newark and Sherwood, including one online focus group at Hull using the discussion facility within a local VLE. The findings of these focus groups have been compiled and analysed and will be published shortly (S1D8).

#### Workpackage 5: Investigation of the potential of JSR 168 and WSRP for search integration within a conformant portal

This work has been completed during the reporting period. The remaining deliverable is an extended study of the investigation of the portlet standards and their use by project partners (S2D7), which will be available shortly.

#### Workpackage 6: Initial toolkit adaptation

Initial toolkit adaptation using JSR 168 has been completed (S2S1-4) and tested within uPortal. Work by the JAFER team resulted in a process that can be used to run JSR 168 portlets as WSRP services. JAFER and the ADS team on HEIRPORT have successfully tested this. Tests are awaited from EDINA on its use and applicability for GetRef. The GetRef portlet is now encompassing the GetCopy functionality instead of being developed as a separate portlet.

#### Workpackage 7: Refined toolkit adaptation

Refined versions of the HEIRPORT, GetRef and Google portlets have been delivered and further adaptations are ongoing (S2S2i-4i). There is also agreed additional functionality to be incorporated into the JAFER portlet (S2S1i). This iterative development will be ongoing to the end of the project, although stable versions as at the end of February 2005 will be used as the basis for user testing. Portlet testing in portal frameworks other than uPortal remains to be carried out, but will include Sun JES Portal Server, plus running them against the test environments provided by Oracle and IBM.

Other workpackages have not yet started.

*List objectives for the next reporting period, note if any changes to plan are needed, and explain why.*

Workpackage 1 – The initial literature review will be incorporated as part of the final literature review (Deliverable S1D12) and will also contribute towards Workpackage 4.

Workpackage 2 – The survey will be revised in the light of experience and user testing and re-run towards the end of the project to further test views and opinions on the use of search tools in different contexts (S1D7 + 10). A visualisation of how users perceive the use of search tools will be developed for dissemination (S1D11).

Workpackage 3 – The focus group analysis will inform the running of further user testing focus groups and other activities to test user perception and opinion about the use of search tools in different contexts and environments (S1D5).

Workpackage 4 – This report will sit alongside the Final Report as a main source of conclusions reached by the project based on the work undertaken across all the user requirements activity.

Workpackage 6 – Ongoing testing of the use of WSRP will take place to investigate its use with all toolkits being adapted.

Workpackage 7 – Iterative development and refinement of the portlets will take place throughout the remainder of the project in accordance with user feedback and testing across project partners.

Workpackage 8 – This will be the final report from the technical development activities within CREE and will reflect back on all the experience and knowledge gained from developing the portlets.

Workpackage 9 – This feasibility report will seek to link up the user requirements and technical development sides of the CREE project and examine how the community can make use of the CREE outputs within their own environments.

The only change to the project plan has been the incorporation of the GetCopy (Balsa) functionality within the GetRef (Xgrain) portlet. This removes deliverables S2S3 and S2S3i from the plan.

## 16. Evaluation Plan

All evaluation of the software components from the project has been delayed until the user testing has been carried out. Notwithstanding this, the project manager has carried out evaluation of the current developments and provided feedback to the project partners. Evaluation between partners has also been the main form of evaluation on the criteria established for the survey and focus groups. Further analysis of the survey respondents has revealed that there was good response from FE, although the publicity mechanisms used were found to be slightly biased towards the HE community. Within staff respondents there was also a proportionately high number of library staff, although this number was not so high that the overall statistics were affected. Focus group attendance was self-selected and this resulted in an audience that were clearly more aware of the issues than others. However, the range of views and opinions produced by the groups and the findings reproduced independently across different groups balanced this bias.

The user testing will allow greater evaluation of the portlets in matching usability requirements and examining likely take-up of the project's outputs. Toolkit performance will be tested to examine scalability as well.

## 17. Quality Assurance Plan

Fitness for purpose will be assessed during the user testing sessions in the coming months. The project partners have been carrying out their own QA assessments on the software development. Accessibility will be assessed during the remaining period of the project.

QA of the survey and focus groups has resulted in a number of findings that will be used to plan subsequent surveys and focus groups within the project.

## 18. Dissemination Plan

The CREE project website will be updated shortly to reflect new deliverables and the direction the project is going in.

An article on the CREE project was published in Ariadne Issue 41, October 2004 (see <http://www.ariadne.ac.uk/issue41/awre-cree/>)

The Google and JAFER portlets were demonstrated at the EDUCAUSE Conference, 19-22<sup>nd</sup> October 2004

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The CREE portlets were demonstrated at the Sakai Educational Partners Program (SEPP) Conference, 8-10<sup>th</sup> December 2004

An article in ASSIGNation is forthcoming.

Abstracts have been submitted to the LILAC Conference in April 2005 and eLit Conference in June 2005. A proposal has also been submitted to the CNI Spring Meeting in April 2005 and a joint submission is being made to the Libraries Without Walls Conference with the Twin Peaks project at the University of Indiana. Future submissions to the JA-SIG and SEPP conferences are being investigated as well as other publication opportunities.

## **19. Exit/Sustainability Plan**

Documentary outputs – these will be disseminated and publicised widely for use within the HE and FE communities via the project website and through publications.

Technical outputs – an assessment of how these might be used beyond the lifetime of the project will be carried out in the next reporting period and as part of Workpackage 9.

## ***Appendixes***

### **Appendix A. Project Budget**

Chris Awre  
February 2005