

<b>Cover Sheet for Proposals</b> <i>(All sections must be completed)</i>		<b>JISC Capital Programme</b>	
<b>Name of Capital Programme: Repositories and Preservation Programme</b>			
<b>Bid for Calls :</b> (Please tick ONE BOX ONLY, as appropriate)			
<b>Discovery to Delivery and Interoperability Demonstrators (Strand C)</b>			
<b>all I – Interoperability Demonstrators</b>		<input type="checkbox"/> a) Interoperability demonstrators	
<b>Repository Start-Up and Enhancement (Strand D)</b>			
<b>all II – Repository Start-Up and Enhancement Projects</b>		<input type="checkbox"/> a) Repository start-up projects <input checked="" type="checkbox"/> b) Repository enhancement projects <input type="checkbox"/> c) Rapid innovation projects: enhancing repository content	
<b>Digital Preservation Across the Lifecycle (Strand H)</b>			
<b>all III – Digital Preservation across the Lifecycle</b>		<input type="checkbox"/> a) Digital preservation across the lifecycle	
<b>Name of Lead Institution:</b>		University of Southampton	
<b>Name of Proposed Project:</b>		Faroes: Repositories for Sharing Learning Resources in Distributed Social Spaces	
<b>Name(s) of Project Partner(s):</b>		University of Portsmouth	
<b>Full Contact Details for Primary Contact:</b>			
<b>Name:</b>	Dr. David Millard		
<b>Position:</b>	Lecturer of Computer Science		
<b>Email:</b>	dem@ecs.soton.ac.uk		
<b>Address:</b>	Learning Societies Lab, School of Electronics and Computer Science University of Southampton SOUTHAMPTON SO17 IBJ		
<b>Tel:</b>	023 8059 2831		
<b>Fax:</b>	023 8059 3218		
<b>Length of Project:</b>	18 months		
<b>Project Start Date:</b>	1 <sup>st</sup> October 2007	<b>Project End Date:</b>	31 <sup>st</sup> March 2009

<b>Total Funding Requested from JISC:</b> £199,749		
<b>Funding Broken Down over Financial Years (Mar – Apr):</b>		
<b>Sep07 - Mar08</b>	<b>Apr08 – Mar09</b>	
£ 67,248	£ 132,501	
<b>Total Institutional Contributions:</b> £ 290,921		
<b>Outline Project Description</b>		
<p>The Faroes project will establish a lightweight repository for learners and teachers to share their resources, based on the CLARE repository (a version of ePrints), the experiences of the L2O, MURLLO and CLAReT projects, and the active community of language teachers and learning technologists that these projects have been engaged with.</p> <p>Through a number of workshops with the language teachers community of practice we have noted two important lessons:</p> <ol style="list-style-type: none"> <li>1) That the community is eager to share their resources and wants a lightweight repository that they can incorporate into their everyday practice. They are keen that the repository should have a user interface that follows the best-practice principles of Web 2.0 sites (social, interlinked, evolving and flexible).</li> <li>2) Practitioners are enthusiastic about sharing learning assets: simple resources such as videos, audio files and presentations. This is because of the simplicity of producing and reusing them (for example, there is no overhead of content packaging, or complex metadata authoring).</li> </ol> <p>It is clear that in our engagement with the community we have reached a tipping point; we need to deliver a real usable repository that fulfils these requirements in order to begin to explore the difficult issues concerning authorship, provenance, authority and copyright in the context of a real system with real users.</p> <p>The project will therefore engage with the established community of language teachers in order to deploy a lightweight repository that will support the sharing of multimedia resources between individual practitioners. We will work closely with the community, taking an agile software engineering approach focused around the notion of the perpetual beta. In this way we hope to both foster cultural changes in resource sharing in the community, and also to create innovations in repository design based on Web 2.0 best practice.</p> <p>The project outputs will include a number of Web 2.0 plug-ins to the ePrints system (the basis of the CLARE learning repository), but the project will also explore the way in which multiple repository installations can become part of the same social space – this is necessary for searching, recommendations and common tags to be available across several connected repositories (as might be expected in different educational institutions). The approach to distributed social spaces, and the interfaces that will enable this, will be important innovations in repository design.</p>		
<b>I have looked at the example FOI form at Appendix A and included an FOI form in the attached bid (Tick Box)</b>	<input checked="" type="checkbox"/> YES	<b>NO</b>
<b>I have read the Circular and associated Terms and Conditions of Grant at Appendix B (Tick Box)</b>	<input checked="" type="checkbox"/> YES	<b>NO</b>

# Faroes: Repositories for Sharing Learning Resources in Distributed Social Spaces

## 1. Introduction

1. The increasing use of e-learning systems in Further and Higher Education has led to extensive efforts being made by teachers and lecturers (practitioners) to produce digital materials. Even when traditional teaching methods are being used, the preparation of resources is often made using a computer package. These resources represent hundreds of thousands of person-hours of effort, yet their reuse is often limited. Learning Object repositories tackle the issue of reuse at an institutional level, but there is little to support individual practitioners who wish to share their own resources, or who want to use the resources of others in a more flexible way. Practitioners can share their work on the Web, but this occurs in an ad-hoc manner, and it is difficult to find resources and validate their quality. Even practitioners who manage to find and reuse the resources of others have no way of providing feedback to the original authors, or to others who may wish to reuse the same material.
2. The Faroes project will engage with an established community of language teachers and e-learning technologists in order to deploy a lightweight repository that will support the sharing of **multimedia resources** between **individual practitioners**. We will work closely with the community taking an **agile software engineering approach** focused around the notion of the perpetual beta. In this way we hope to both **foster cultural change** in resource sharing in the community, and also to **create innovations in repository design based on Web 2.0 best practice**.
3. The name **Faroes** reflects the idea of an island chain of repositories, where each island (a social space for a particular teaching and learning community) holds some connection with the next, allowing experiences to be shared across different parts of the chain as needed (for example, repositories based at different institutions, or in the case of interdisciplinary subjects, repositories from different disciplines). This understanding and management of social spaces will be a **major technical innovation in repository design**.

### 1.1 Background and Context

4. The Intute<sup>1</sup> online service (partly funded by JISC) attempts to mitigate the problem of resource sharing by cataloguing web published resources. Other sites attempting to do similar work include MERLOT<sup>2</sup> in the USA, eduSource<sup>3</sup> in Canada, and LORN<sup>4</sup> in Australia. Cataloguer sites are extremely useful for classifying and disseminating existing published resources to the community, but they do not help individual practitioners to share their own materials and thus miss out on a potentially vast pool of resources.
5. A Learning Object (LO) is a general term that describes any entity that can be packaged and reused for learning (IEEE LOM definition). Typically they are a package of several complimentary files (such as a collection of HTML pages) that are described using meta-data (such as the IEEE LOM standard). LOs represent a method for practitioners to describe and share their resources, and LO repositories could potentially allow them to do this. A number of JISC projects have been concerned with creating LOs (X4L, Business English and ReSET), and others have looked at how to establish repositories and support a repository culture (JORUM, APU, RELOAD and SOURCE).
6. We have been involved in a number of LO repository projects. L20 (funded by JISC), which focused on issues relating to practitioners in sharing, finding and repurposing LOs, and MURLLO (funded by

1. \_\_\_\_\_

<sup>1</sup> <http://www.intute.ac.uk/> (accessed June 2007)

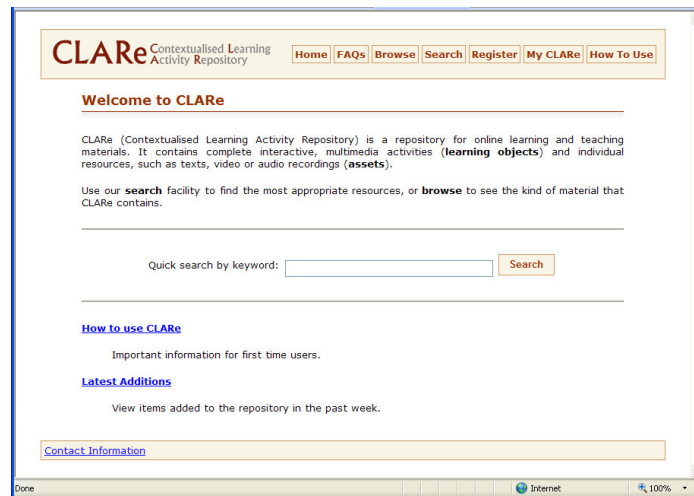
<sup>2</sup> <http://www.merlot.org/> (accessed June 2007)

<sup>3</sup> <http://www.edusource.ca/> (accessed June 2007)

<sup>4</sup> <http://lorn.flexiblelearning.net.au/lorn/go> (accessed June 2007)

Eduserv) which continued by creating tools to support these activities. In these projects we have engaged with a several different practitioner communities (typically in the language and study skills domain), and also identified lightweight shared resources that we have termed Learning Assets. Learning Assets differ from LOs in that they do not need to be packaged (they are typically a single file or simple collection) and are finer grained and thus can be less prescriptive about use (for example, video clips, text articles, audio interviews, etc).

7. We are currently involved in the CLARET project (funded by JISC) that has taken CLARE, a LO repository based on ePrints, and created a number of tools to improve usability. CLARET has engaged with an established community of language teachers in order to identify important tools and improvements to the existing CLARE system. These include a concept map browser, more advanced search facilities, and feedback tools such as ratings to help create some experience-based context for the learning resources (both Assets and Objects).



8. The existing installation of CLARE can be found at <http://clare.eprints.org/>

## 1.2 Work to be undertaken

9. We wish to build on the strong foundations of these projects and take advantage of the momentum within the language teaching community. Through our interaction with them in the CLARET project, two important requirements have emerged:
  - a. The Community has expressed a desire to work with lightweight repositories that include Web 2.0 technologies such as structured comments, tags, virtual structures, and recommendations. The perception is a repository should replicate the best-practice openness and user experience seen in commercial Web 2.0 sites such as Flickr or YouTube.
  - b. It has become apparent that practitioners are very enthusiastic about sharing Learning Assets due to the technical simplicity of producing and reusing them (for example, there is no overhead of content packaging, or complex metadata authoring). This makes them ideal for individual practitioners who want a lightweight way to share their resources.
10. We can see that community members want to engage, and are enthusiastic about sharing their resources (for example, we can see a high level of reuse in traditional printed media), we now wish to make this possible at a more personal and flexible level using digital resources. We believe that we have reached a tipping point, our prototypes and continuing community engagement means that we are now ready to deploy such a lightweight repository, and can begin to support actual use and investigate issues such as resource history, quality and copyright in a very practical way. It is also our hope that a lightweight repository might also encourage students to share their own learning materials, creating a new and valuable source for resources.

11. This proposal is for a project to build on our existing engagement with the languages community (including learning technologists working with that community) to provide the type of lightweight community repositories that they are asking for, and bootstrap their individual (as opposed to institutional) use of repositories for exchanging learning assets.
12. Specifically we will:
  - **Deploy a lightweight repository** early in the project lifetime and engage directly with the community throughout the project to **encourage the sharing of assets**, and to explore issues that until now have been rather abstract, such as policies of social ownership and provenance, and notions of trust and authority.
  - **Develop a number of official plug-ins for ePrints** in consultation with the community, in order to support more personal resource sharing by enabling Web 2.0 functions such as tagging, virtual structures and recommendations
  - **Provide a number of bootstrap activities** to support the community in identifying, uploading and describing their learning assets

## ***2. Fostering Cultural Change***

13. Southampton (Learning Societies Lab, eLanguages) and Portsmouth (School of Languages and Area Studies) are ideally placed to develop the required tools and to work with the community and foster the necessary cultural change.
14. Through the L20, MURLLO and CLARET projects we have developed a lot of experience of using LOs at an institutional level. Through the eLanguages Centre we have built up a great deal of trust with a number of institutions and the languages community at large. As well as our software expertise we have also developed a number of methodologies and tutorials that ease practitioners into the world of shared resources, for example, guides on how to digitise or mark-up existing resources.
15. The language practitioners are in effect a virtual community that is cross-institutional. When it comes to teaching and learning needs they often have more in common with other practitioners working elsewhere than they do with colleagues in their own institution. We hope to enable the practitioners in this extended community to begin to exchange and reuse their materials without the political or technical overheads of existing LO approaches.
16. Learners can also benefit from this type of lightweight repository, not only for accessing study materials, but also for sharing public resources that they discover elsewhere or have created themselves (such as literature studies, presentations, etc.) Part of our strategy will be not only to encourage resource sharing amongst language teachers, but also to support them in promoting the repository to their students.
17. Currently institutions negotiate, purchase and deploy LOs in a top down manner. Our existing relationship with the languages community is an excellent place to try and foster the sort of cultural change that will be necessary to move from institutional management of LOs to a more flexible sharing culture at the individual level.

## ***3. Technological Innovation***

18. Our experience of knowledge engineering, practical deployment and development of repositories, web applications and social systems, means that we are well placed to create the ePrints plug-ins that are necessary to support personal sharing of resources.
19. ePrints is a well established repository for research artefacts (primarily publications), currently installed at 220 institutions world-wide, and funded originally by JISC (although additional funding has come from sources such as the eScience community and the RAE). Southampton is the home of the ePrints effort and we fully understand the importance of the open access movement. We see the sharing of Learning Assets as an extension of this philosophy from research to teaching resources. CLARE is a learning resource repository based on ePrints, the additional social tools we develop for the lightweight version of CLARE will also become primary extensions for ePrints 3 (the latest version

of the ePrints repository) and will become part of the main ePrints distribution. This should allow other types of resources in other installations of the repository to benefit from evolving community experience and reflection.

20. One technical challenge is that the effectiveness of social spaces is proportional to the size of their user community. Current Web 2.0 solutions rely on a central site, effectively one giant global nexus. However learning resource repositories will need to be scoped by subject in order to be effective and rather than one central site (or even a central site per topic) their installations are intended to be spread across many institutions. This has the potential to create isolated community islands that do not take advantage of each others experiences.
21. To solve this problem different repository installations need to be able to share their social networks through open service interfaces. Therefore the project will also:
  - **Investigate distributed social spaces**, in particular how different repository installations can become part of the same distributed community space
22. This would be a **significant technical innovation** and a major contribution to the current understanding of social software.

#### **4. Benefits to JISC and the UK Community**

23. JISC's mission is to provide world-class leadership in the innovative use of Information and Communications Technology to support education and research. Faroes will fit into this strategy in a number of ways:
  - *Innovative and sustainable ICT infrastructure, services and practice that support institutions in meeting their mission* - ePrints is a highly successful and self supporting repository, using Open Source Code and supporting Open Access protocols. The ePrints team are regularly asked by other universities whether the system can support educational materials. Faroes will deliver a lightweight version of ePrints tailored for the personal sharing of learning resources by both teachers and students.
  - *Promoting the development, uptake and effective use of ICT to support learning and teaching* - through sustained engagement with the community Faroes will promote and support the use of repositories. By including the community in the development we will also encourage ownership of the repository and the social rules which govern its use.
24. Faroes will engage with the JISC Repository Support Project (RSP) to build on their best-practice knowledge of how to establish policies for repository maintenance and use. Southampton is part of the management team of RSP and it is hoped that as Faroes is exploring a different type of repository (lightweight and personal rather than institutional) we will also be able to contribute to their developing databank of experiences.

#### **4.1 e-Framework**

25. The Faroes project will develop its distributed social spaces system using a number of web-services that will be described in terms of the JISC e-Framework. It is expected that management of social spaces will form a high level Service Genre, and that the interfaces themselves will be described as Service Expressions. These specifications will be added to the JISC e-Framework web site and will be reusable by other repository developers.

#### **4.2 Information Environment**

26. Faroes will develop a lightweight version of CLARE (based on ePrints) repository. As Faroes is concerned with personal resource sharing the repository will fit neatly into the *provision* layer of the JISC Information Environment, and will work alongside existing tools such as JORUM or other institutional repositories for Learning Objects. The services developed to manage the distributed social spaces will form part of the *fusion* layer and will enable searching in the context of a particular social space (a community, or set of communities). Information Environment standards (such as Dublin Core

and UK LOM for metadata) are already incorporated into CLARE, and will continue to form the basis of the new lightweight installations.

## 5. Workplan

27. The project has two broad themes: engagement with the community to support the take-up and population of the repository, and the parallel technical development of the repository based on user needs and feedback.

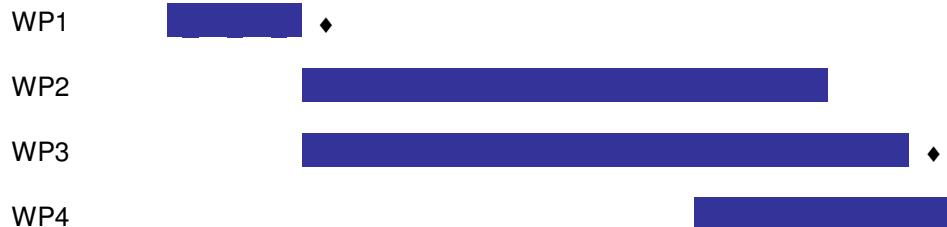
### 5.1 Partnerships

28. The project will be undertaken by three groups: the Learning Societies Lab and eLanguages Centre (at the University of Southampton) and the School of Languages and Area Studies (at the University of Portsmouth). There will be one full time researcher based at each site, with most management activities occurring at Southampton (see below for details). All these groups have worked successfully together on previous projects, and are respected within the languages community itself for their expertise and enthusiasm.
29. The community of practice that the project will engage with is formed from teachers that have worked together in the past in a number of ways. The core HE institutions involved are the Universities of Portsmouth, Reading and Surrey who are acting as hubs helping to coordinate activities with local partner colleges. These regional collaborations have encompassed projects including a SEEDA funded project to establish language needs in the South-East region business sector, a TLTP 1 (Teaching and Learning Technology Programme) language materials online development project, an FDTL 2 (Fund for the Development of Teaching and Learning) independent learning project *CIEL*, the TLTP 3 technology-based project *Alladin* and the LLAS Subject Centre materials development Dissemination Project.
30. We have also received **expressions of support from many individual members of the community of practice**, including St. Vincents College, Gosport (Gabriele Harris), ACE, Milton Keynes (Maria Hollingsworth), University of Reading (Joan McCormack), the University of Sheffield (Sabine Little), King's College London (Cecilia Trevino), Fareham College (Nicola DeLestang) and Intute (Ylva Berglund).

### 5.2 Work packages

31. This project comprises four work packages (W1-W4) and nine deliverables (D1-D9). The deliverables are described in the work packages that create them. Broadly the project will be in two phases, the first concerned with engaging with the existing community and refining a live repository based on their feedback and participation, the second will be concerned with broadening the appeal of the repository to the extended community and promoting the repository in other disciplines (beyond languages).

2007			2008												2009		
O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
BY 07-08						Budget year 08-09											



32. Figure 1. Faroes Gant Chart

33. Figure 1 shows the Gant chart for the project. There are two technical milestones represented by a '♦' sign in Figure 1. The first milestone is the completed deployment of the initial repository. The second

milestone is the completion of the ePrints plug-ins (so that they can be packaged with the ePrints deployment).

#### **Work package 1: Repository Deployment**

34. This work package is concerned with revising the current CLARE repository so that it deals exclusively with Learning Assets, and then deploying an instance of this lightweight version to be the initial Faroes Repository. This will include establishing an appropriate domain name, and support site for users. The work package forms the basis of the project and it is expected to complete within the first three months.

*Deliverable 1* – live repository site for early adopters

#### **Work package 2: Community Engagement (Early adopters)**

35. This work package is concerned with engaging with the early adopters in the languages community (those people who have expressed an interest in the project, or have attended previous MURLLO and CLARET events). This will begin with a startup workshop to introduce the lightweight repository and guide the practitioners on how to upload content. This will be followed by a number of site visits undertaken over the first 12 months of the project to support the use of the repository and present it to colleagues and students in site. Towards the end of the first year there will be a feedback workshop in order to obtain some consensus views about the repository and the tools.

*Deliverable 2* – startup workshop for early adopters

*Deliverable 3* – initial site visits to early adopters (a continuous process over first year)

*Deliverable 4* – feedback workshop for early adopters

#### **Work package 3: Repository development and evolution**

36. Once the lightweight repository has been deployed (WP 1) we will begin the process of revising the software. We are taking an agile approach sometimes known as the perpetual beta; this involves tight cycles of requirements gathering, development, deployment and evaluation. This is possible due to the continuous engagement with the community (WP2), effectively an extended co-design process. This work package will run to the end of the project, in the last few months we will select the tools chosen as most useful by the community and package them up as official ePrints 3 plug-ins. In addition this work package will explore the idea of distributed social spaces - how multiple repository deployments might become part of one social space. It is expected that this will result in a number of interfaces for the repositories that will be expressed through e-framework service genres and expressions.

*Deliverable 5* – ePrints 3 toolset (chosen in response to community feedback)

*Deliverable 6* – extended social spaces interfaces (for connecting many repositories to one social space)

#### **Work package 4: Community Engagement (Extended)**

37. While our existing community of practice forms an ideal group to refine and prototype a working repository it will be necessary to broaden the repositories use and appeal to other language teachers, and make it known in other disciplines. This work package will occupy the last six months of the project and will begin with a second introduction workshop targeted at the extended community. Supporting site visits will follow. A final community support workshop will be held towards the end of the project in order to discuss strategies for taking the repository forward and in order to generate some evaluation feedback to JISC on the level of technical and political success of the project.

*Deliverable 7* – extended community introduction workshop

*Deliverable 8* – extended community site visits

*Deliverable 9* – community support workshop

## **6. Project Management**

38. The Project is a joint effort between teams at the University of Southampton and the University of Portsmouth. The Project Technical team will have weekly project meetings chaired by the project manager and involving investigators as required. These weekly meetings will monitor progress against objectives, and consider and decide upon project plan adjustments. A number of steering meetings will also be held at appropriate points (such as the start of each work package).
39. The project will be managed by the Learning Societies Lab (LSL) at Southampton. LSL will retain a senior researcher (Dr Yvonne Howard) to manage the project day-to-day, to arrange the dissemination, and to take responsibility for reporting. The project will employ two project assistants, one to work on development (Southampton) and one to manage the community engagement (Portsmouth). The project manager and one of the researchers is already in post, only one research post (the developer at Southampton) needs to be recruited. A part-time e-Languages specialist and pedagogical expert (Kate Borthwick) will also be part of the technical team based in the e-Languages centre at Southampton. This person is also already in post.

### **6.1 Dissemination**

40. Dissemination of information and outcomes from the project activities will be announced through the project engagement activities with the languages community (workshops and site visits) and will also be provided by a project Web site, which will be created at the start of the project and will contain current information on activities and community events (including a blog with Atom and RSS feeds). Links to relevant articles and projects relating to the project will be added. Presentations and publications derived from project work will also be available on the site. Project outcomes will also be presented at relevant national conferences, and it is expected that the experiences of deploying personal repositories and managing distributed social spaces will also be presented at subsequent international conferences. The project will publicise its events and activities with the HEA subject centre for Languages, Linguistics & Area Studies who have effective routes of dissemination through their web site, regular e-bulletins, newsletters and annual e-learning conference.

### **6.2 IPR, Sustainability**

41. The code developed as ePrints plug-ins will be made available under an appropriate open source agreement for use within any educational establishment and in conformance with JISC's requirements, they will also be made available as core e-Prints plug-ins to be distributed with the ePrints system and optionally installed by users.
42. Sustainability of the code will be achieved through ensuring other universities and JISC/CETICS projects have access to the code and documentation for the system, through Open source licenses (the code being published in Source Forge). Quality factors built in to the work packages will ensure successful Open Source life through achievement of a good OSMM rating, and community engagement will ensure alignment with community needs. All reports, tools and code from the project will remain on the project server for a minimum period of 3 years following the end of JISC funding, and will be archived in the institutional repository (ePrints) and any appropriate JISC repositories such as Jorum.

### **6.3 Standards and QA**

43. The technologies used in this project will be Javascript, DHTML and PERL based (an ePrints requirement). The project will adopt an agile approach; using co-design, modeling, and early test plan generation where it supports rapid delivery. Coding standards will be adopted to ensure readability, testability and installation ease. Code will be unit tested using an appropriate tool. During development the code will be deposited under version control in Subversion and bugs will be tracked using a public version of Flyspray. We will choose the most appropriate Service Oriented technology (SOAP or REST) and use W3C standards such as SOAP and WSDL where required. Compliance with SOAP will be assured using an appropriate testing package (*e.g.*, SOAPscope).

## 6.4 Engagement with the Community

44. The project will work closely with the language teachers' community of practice through the workshops and activities of WP2. This will be extended to the broader community (those you have not necessarily already engaged with such projects) in WP4. In addition the project team will support those members in promoting the repository in their own institutions and with their own learners. In addition the project will work in partnership with JISC to disseminate and evaluate the projects activities, through e-Framework events and the work of the JISC Repository Support Project. The project will also engage with the LLAS (Languages, Linguistics and Area Studies) Subject Centre, and the HE Academy, in order to ensure that the broader community is aware of the project's work and progress. The project will allocate at least 10 person-days to engage with JISC programme level activities.

## 6.5 Risk Analysis

45. The following section identifies the sources of risk considered most significant, estimates the project's exposure to the risk, and describes the project's approach to addressing the risk. Risk exposure (i.e. significance) is expressed as the product of estimated risk probability, P: 1 (low) .. 5 (high), and risk severity, S: 1 (low) .. 5 (high), to yield a risk exposure score, E: 1..25.

- **Delay in employing staff** P:2 S:3 E:6 While there is always an inherent delay in advertising for and employing staff, only the Southampton developer needs to be recruited at the start of the project (other team members are already in place). This risk will be managed in two ways. Deliverables can be provided by the academics on the team, and/or by researchers brought in from existing ECS projects.
- **Difficulties with Technical Development** P:1 S:5 E:5 In any development project there is a danger that the software development will take longer than anticipated, or may fail to fulfil requirements. We will manage this risk by using an agile approach to ensure that successive, incremental versions of tools are delivered frequently to be evaluated by the community. Engagement with the community, co-design and a feedback driven response will ensure that the tools developed are those identified as having the most value to the community. The lightweight repository will be developed in an ePrints infrastructure, which has been successfully developed over many years.
- **Lack of Community Engagement** P:1 S:5 E:5. The Project will be engaging with an established group of language teachers and teaching managers, but there is still some risk that community members will cease their engagement. This risk will be minimised by dedicating explicit project funds for supporting community events (for example, subsidising the attendance of community members) and by a strategy of outreach through site visits. A number of expressions of interest have been sort prior to this proposal being submitted, and a broad section of the community will be involved to minimise the impact of unexpected changes in other institutions or personal circumstances.
- **Difficulty developing within the e-Framework and the Information Environment** P:3 S:3 E:9. While issues are expected around the maturity of the e-Framework during the lifetime of this project, and around the relationship between the two over-arching architectures of the JISC e-Framework and the JISC Information Environment, the project team has excellent experience of contributing to e-Framework development and is capable of defining and implementing alternative development and integrating approaches.
- **Loss of key personnel** P:2 S:2 E:4. The project team has strength in depth and full institutional support. Relevant experience and expertise is widely available within the three teams undertaking the project.
- **Legal** P:1 S:1 E:1. Project IPR and copyright will be agreed at the outset. A Consortium Agreement governing partner responsibilities will also be agreed at the commencement of the project.
- **Ethical** P:2 S:1 E:2. The project will follow Institutional ethical guidelines to gain approval fro all workshops involving community engagement or evaluation

## 7. Budget

46. Table 1 shows the summary budget, the detailed budget is in Appendix B. Note 3.78% indexation in the second year of the project and 4.54% in the third year.

### Directly incurred costs

	Ytd Mar08 <i>Yr1</i>	Apr08-Mar09 <i>Yr2</i>	Apr09-Mar10 <i>Yr3</i>	<i>Total FEC £</i>
██████████	██████████	██████████	█	██████████
<b>Equipment</b>	8,500	-	-	8,500
<b>Travel &amp; subsistence</b>	3,800	9,547	-	13,347
<b>Other</b>	2,100	4,698	-	6,798
<b>Total incurred</b>	<b>56,657</b>	<b>104,627</b>	<b>-</b>	<b>161,284</b>

### Directly allocated costs

	<i>Yr1</i>	<i>Yr2</i>	<i>Yr3</i>	
██████████	██████████	██████████	██████████	██████████
<b>Institutional estate</b>	24,988	51,446	6,112	82,546
<b>Total allocated</b>	<b>34,464</b>	<b>69,510</b>	<b>23,823</b>	<b>127,797</b>

### Indirect costs

General services	61,024	125,639	14,926	201,589
<b>Total FEC</b>	<b>152,145</b>	<b>299,776</b>	<b>38,749</b>	<b>490,670</b>
<b>JISC contribution</b>	67,248	132,501	-	199,749
<b>Institutional contribution</b>	84,897	167,275	38,749	290,921

47. Table 1: Summary Budget

## 8. Key Personnel

48. **Dr. David Millard** – (Principle Investigator) is a Lecturer of Computer Science within the Electronics and Computer Science Learning Societies Lab. The thread running through his research is one of contextual information systems (such as Adaptive Hypertext, Mobile systems, e-Learning and the Semantic Web). He is also interested in Knowledge Interfaces, and how we capture knowledge naturally using techniques from Web 2.0 such as Tagging, Annotation and Semantic Wiki Authoring. David is the technical lead for the JISC funded CLARET and MPLAT projects. He has been involved in international research for ten years and has presented papers at many conferences and workshops, most recently ACM Hypertext 2006 and ACM MobileHCI 2006.
49. **Dr. Yvonne Howard** – (Project Manager) is a Research Fellow at the University of Southampton School of Electronics and Computer Science. She was involved in the EPSRC funded Automated validation of Business Critical Systems with Component Based Designs (ABCD) project that made Formal Modelling techniques usable by real Systems Engineers. Her research interests now lie in the use of Agile Software Engineering techniques, particularly to develop service-oriented systems. Yvonne has a great deal of experience as a JISC Project Manager in the FREMA, FREMA 2, R2Q2, MPLAT and CLARET Projects.
50. **Miguel Arrebola** – (Co-Investigator) is a Senior Lecturer in Spanish Language in the School of Languages and Area Studies and coordinator of the Spanish Language Team. He is a member of the

School of Languages and Area Studies Research and Knowledge Transfer Committee and the IT Users Group. He is responsible for the development of in-house audiovisual materials, which involves the coordination of a team of academic and technical staff working towards the production and delivery of AV materials using video streaming technologies. He has collaborated with the HE Academy Subject Centre for LLAS in a variety of projects, including the Opening the Door to Language Learning project, as well as with the FDTL projects CIEL, FOCUS and ALLADIN. Miguel has produced a range of case studies for the above-mentioned schemes and has extensive experience in participating and organizing workshops at institutional, regional and national levels, most recently as the Portsmouth hub coordinator for L20 Sharing Language Learning Objects project.

51. **Kate Dickens** – (Co-investigator) is the Manager of eLanguages (Re-usable Learning Object production and research unit), School of Humanities, University of Southampton. Kate has extensive experience in the area of Learning Repositories. She was Project Leader on the Eduserv-funded MURLLO Project. Project Leader on the JISC Distributed e-learning SE Regional Pilot Project (L20). Project Manager on the UKeU eLanguages Project – co-ordinating the production of over 1100 peer reviewed learning objects from six Universities. She is also the Project Manager for the LTSN Subject Centre for Language, Linguistics & Area Studies content management system and related website.
52. **Dr. Les Carr** – (Co-investigator) Les Carr is a Senior Lecturer in the Intelligence Agents and Multimedia research group at Southampton University. Les' work has been to do with developing ideas about Open Hypermedia that has resulted in the Distributed Link Service (DLS), a simple idea for making the WWW a less arthritic environment and more able to keep up with mental gymnastics that human thinkers are capable of. In recent years he has become an international name in Open Access and was the Chair of the 2006 ACM Web Conference. He has extensive experience of project management and has been Principle Investigator for EPrints, Open Journal Initiative, COHSE, OpCit, Open Journal Project, QuIC, Repository for the Laboratory, Virtual Orthopaedic European University, and WiCK: Writing in the Context of Knowledge.
53. **Dr. Gary Wills** - (Co-investigator) is a Senior Lecturer in Computer Science at the University of Southampton. His main research area is in the application of advanced knowledge technologies, and in particular Personal Information Environments, for the industrial, education and medical domains. Gary is the project manager of a number of JISC funded projects; for instance the Collaborative Orthopaedic Research Environment project funded under the first VRE call and the R2Q2 and ASDEL projects under the latest Tools call. Gary is also an investigator on the CLARET project building tools for repositories, the MPLAT project for mobile learning. Gary was also the Technical manager in the Virtual Orthopaedic European University project (VOEU), responsible for developing the infrastructure for a Virtual Learning Environment for post-graduate training in surgery. Gary is a member of the CETIS Assessment SIG.

## Appendix A: FOI Withheld Information Form

54. We would like JISC to consider withholding the following sections or paragraphs from disclosure, should the contents of this proposal be requested under the Freedom of Information Act, or if we are successful in our bid for funding and our project proposal is made available on JISC's website.
55. We acknowledge that the FOI Withheld Information Form is of indicative value only and that JISC may nevertheless be obliged to disclose this information in accordance with the requirements of the Act. We acknowledge that the final decision on disclosure rests with JISC.

Section / Paragraph No.	Relevant exemption from disclosure under FOI	Justification
None		





<b>Indirect costs</b>	<b>Rate £</b>	<b>FEC £</b>
██████████	██████	██████
██████████	██████	██████
██████████	██████	██████
Total indirect yr1		<u>61,024</u>
Total indirect yr2		125,639
Total indirect yr3		<u>14,926</u>
<b>Total FEC yr1</b>		<u>152,145</u>
<b>Total FEC yr2</b>		299,776
<b>Total FEC yr3</b>		<u>38,749</u>
<b>Total project FEC</b>		<b>490,670</b>
JISC contribution yr1	44.2%	67,248
JISC contribution yr2	44.2%	132,501
JISC contribution yr3	0.0%	-
		Total JISC contribution <u>199,749</u>
Institutional contribution yr1	55.8%	84,897
Institutional contribution yr2	55.8%	167,275
Institutional contribution yr3	100.0%	38,749
		Total institutional contribution <u>290,921</u>

## Appendix C Support letters



### School of Electronics and Computer Science

Professor Wendy Hall CBE FREng  
Head of School

University of Southampton    T +44 (0)23 8059 2749  
Highfield    F +44 (0)23 8059 2978  
Southampton    E hos@ecs.soton.ac.uk  
SO17 1BJ United Kingdom    www.ecs.soton.ac.uk

JISC  
Northavon House  
Coldharbour Lane  
BRISTOL  
BS16 1QD

18 June 2007

Dear Sir/Madam

**Re:** JISC Circular 01/07 Capital Programme  
**Bid Title:** Faroes: Repositories for Sharing Learning Resources in Distributed Social Spaces

I am writing to confirm the University of Southampton's commitment to the Faroes Project within the JISC's Capital Programme.

The Project will be run in the Learning Societies Lab of the School of Electronics and Computer Science under the leadership of Dr David Millard, with support from Dr Gary Wills, Dr Les Carr and Kate Dickens, as co-investigators. They will be provided with all the necessary facilities of this School over the period of the above contract in order that they can successfully complete this important and timely research

Yours faithfully

A handwritten signature in black ink, appearing to read "Harvey Rutt".

Professor Harvey Rutt  
*Deputy Head of School*



School of Languages  
and Area Studies  
Park Building  
King Henry I Street  
Portsmouth PO1 2DZ  
England

Tel: (023) 9284 8484  
Fax: (023) 9284 6040

15 June 2007

I am writing in support of the FAROES project. This builds on previous JISC funded schemes in which the School of Languages and Area Studies has actively participated, and addresses key future developments in order to facilitate and foster the sharing of resources among the teaching community.

SLAS's experience to date has not only had an impact within the institution, but has also strengthened links with the wider teaching community. The FAROES project is a logical continuation of these activities.

W Brierley  
Head of School



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