



## Project Management

# Second Year Annual Report

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## Executive Summary

HeadLine (**H**ybrid **E**lectronic **A**ccess and **D**elivery in the **L**ibrary **N**etworked **E**nvironment) is one of the **five** Hybrid Library projects funded under the Electronic Libraries (eLib) Phase 3 programme of the UK Higher Education Joint Information Systems Committee (JISC). Project Partners are the London School of Economics, London Business School and the University of Hertfordshire. This three-year project began in January 1998 and aims to design and implement a working model of the hybrid library, in actual academic environments in the subject areas of Economics and Business Studies. The project will present the user with a wide range of library resources, regardless of physical form, via a common Web-based interface.

This is the second annual report published by the HeadLine project and covers the period from 1<sup>st</sup> August 1998 to 31<sup>st</sup> July 1999.

This report and its appendices outline the main activities of the project during this year. Some key work centred on resource description and the creation of a prototype HeadLine Resource Finder. The team conducted extensive investigation into user preferences for the service and found that users most often seek help finding material. This discovery fed into the design of the Shelved Resource Locator (SHERLOC) which helps users find shelfmarks or facilities within library buildings. Other 'discovery to access' mechanisms have also been investigated during this year, for instance a document delivery service between partner sites.

The project experienced some changes in direction, primarily the decision not to use ROADS software to describe resources, the change in methodology for the analysis of user requirements, and a different approach to the use of institutional MIS data. These will have no impact upon our overall objectives, but have required a scheduling adjustment to extend Phase 1 of the project by 2 months, and consequently reduce the duration of Phase 3.

This year has been a useful learning experience for the project team not only in research and development activities but also through difficulties and challenges faced. Institutional circumstances can have a major effect on the project, for instance library moves at two of the partner sites had an impact on resources available to the project, and a change in library system at the third site reduced the staff time available for HeadLine. The difficulty in extracting MIS data at all partner sites has shown that in future phases more time must be allowed for liaising with institutional departments and also has taught the team to look for an alternative 'fall back' solution to the problem of MIS data in the HeadLine system.

There have been several collaboration opportunities for HeadLine through this year and the team have taken advantage of these, particularly in joint dissemination opportunities and in approaching vendors together. There is potential for further co-working between projects, for instance in testing each other's systems, providing that they have sufficient time for these activities in addition to their own project work.

The main focus of evaluation work has been on assessing resources and software to use in the HeadLine system; user requirements of the HeadLine system have also been ascertained, as has the desired content of HeadLine; this was achieved by consultation with library staff and observation of users. A summative review of the project was produced in the form of the Phase 1 Evaluation Report which is appended to this document.

The main objectives for the next year are focused on building the Personal Information Environment, integrating the various components, setting it up in partner sites, and testing it on users. Interim conclusions show that the project is progressing as scheduled and has made progress during this year in key areas such as resources, user requirements as well as collaboration and dissemination. A list of dissemination achievements for this period is appended to the report.

***Main achievements this year***

In summary, during this year the HeadLine Project has:

- Completed a comprehensive analysis of **Library Resources** and developed a sophisticated Datamodel for resource metadata, building on previous work done in other eLib Programme projects and the wider information science community.
- Made progress in researching the requirements for a corresponding Datamodel describing **Library Users**, but has discovered more complexity than at first anticipated in its practical implementation.
- Completed a significant study and analysis of **Library Information Service Enquiries** made by users, the publication of which has also provoked interest and contacts from institutions not previously connected with the HeadLine partnership or the eLib Programme.
- Produced detailed design documentation of our proposed functional **model of the Hybrid Library**, and working prototypes of some components of the model.
- Participated in an active and often leading role in joint activities undertaken by all or several of the projects funded by Phase Three of the eLib Programme.
- Promoted awareness of the aims, activities and achievements of the Project amongst library staff of the partner institutions, and the wider library community, and has preparations in place for timely dissemination to potential users of HeadLine services.

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## 0. Introduction

As an innovative project from which others are expecting to learn, the HeadLine Project Board and Project Team believe that it is important to provide information that will be speedily accessible to the wider community, so that the lessons emerging from monitoring and evaluating the progress and success of our project are recorded, systematised and disseminated. In general, we feel that this objective is best served by dissemination (individually or in collaboration with other appropriate bodies and projects) following the timetable of events and developments within our own project plans.

However, this report has been prepared primarily to meet the requirements and timetable specified in the "eLib Phase III: Format for 2<sup>nd</sup> Year Project Annual Reporting (August 1999)", which is intended to provide eLib in its overall management role with a consistent and coherent set of data from all projects about activities and progress, the process of implementation, reflections on what has been learned and revised understandings and expectations about the project innovation. This in turn is intended to dovetail with management agreements made with eLib about regular reporting.

The HeadLine Project Proposal accepted by eLib included proposed summative evaluation reports at the conclusion of each of the three main Phases of the HeadLine Project. Our **Phase 1 Evaluation** report covers the period from January 1998 - February 1999, and is therefore appended to (and frequently referenced within the body of) this report.

In terms of our own calendar this annual report covers the last 7 months of Phase 1 (August 98 - February 99) and the first 5 months of Phase 2. So the progress reported for the **Phase 1 Evaluation** report has been supplemented with updates on progress which has occurred since that report.

### 0.1 Project and eLib Timetable

<b>Calendar years</b>	1998		1999		2000	
<b>HeadLine phases</b>	Phase 1: 1st January 98 - 28th Feb 99		Phase 2: 1st March 99 - 28th Feb 2000		Phase 3: 1st Mar 00 - 31st Dec 00	
<b>eLib years</b>	eLib year 1: 1st Jan 98 - 31st Jul 98	eLib year 2: 1st August 98 - 31st July 99	eLib year 3: 1st August 99 - 31st July 2000		eLib year 4: 1st Aug 00 - 31st Dec 00	

## 1. Activities and Progress

### 1.1 Main Activities undertaken by the Project

During the period from 1<sup>st</sup> August 1998 to 31<sup>st</sup> July 1999, the project has made significant progress in the areas of Users, Resources, and System Design. The team has undertaken research and development activities (organised into 5 Workpackages) as well as Project Management and Dissemination Activities. These are reviewed in the following sections.

#### 1.1.1 Research & Development Activities

The main research and development activities during this period were divided into 5 Workpackages (Core System Design, Resources, Users, Personal User Environment, Discovery to Access) and Tasks within these Workpackages. Most of the development tasks completed in this period are covered in the **Phase 1 Evaluation Report** (as the period of Phase 1 prior to July 98 was mainly used for establishing project administration, recruitment etc.). More detail about these tasks in each workpackage or area can be found in the **Phase 1 Evaluation Report** but where progress has been made in any area during Phase 2 (i.e. since the publication of that report) it is detailed in this report under the relevant Workpackage.

#### Workpackage 1 - Core System Design and Integration

This Workpackage has produced tools which can be used later in the project (for instance the Use Log Template and User Interface Prototyping toolkit) and has also focused on background research, analysing the environment in which HeadLine services will be provided. This work will be vital in Phase 3, to ensure that what is built will be compatible with environments at partner sites and externally. This Workpackage has progressed as scheduled (although some tasks took slightly longer than expected) and all deliverables produced are posted on the Workpackage 1 area on the Team Website.

#### 1.6 Overall system design and interfacing

During Phase 2 the first prototype PIE (Personal Information Environment) has been produced, to determine the overall design of the HeadLine system and what features it will have. This may be subject to some modification, due to technical issues, or user reactions to the system, but the first version of this design provides the basis for development work in Phase 2.

#### Workpackage 2 - Library Resources

The majority of work during this period has centred around resources. All resources available electronically at the three partner sites have been analysed, ranked for inclusion in the system and listed on one central database. These lists are updated as resource portfolios change at partner sites, and non-traditional resources have been incorporated into these, for instance course materials and working papers.

In summary the Resources tasks have gone more or less according to plan, but some tasks have involved more work than was anticipated or have provided technical problems for the Project Team.

### 2.1 Assessment of ROADS

Significant development work has been done with the ROADS database to access resources and the HeadLine Resource Finder, a searchable resource database combining records from the LBS and LSE, has been tested and demonstrated externally. This resource finder needs to fit with the project's Resource Description Model (RDM) which determines how information about resources is recorded for effective use and retrieval of relevant materials. Extensive testing has now been finalised during Phase 2 and has determined that the ROADS database is structurally inadequate for our RDM so an alternative open source SQL database has been selected instead.

## **2.2 Resource Description Model**

During Phase 2 the Resource Description Model (RDM) has been established and entered into a database - this will be used for the next version of the HeadLine Resource Finder, due later in Phase 2.

### **Workpackage 3 - Library Users**

The main challenge for the project in this Workpackage lies in HeadLine's reliance on external factors, for instance institutional peculiarities in Management Information Systems at each partner site have made it difficult to access and analyse the MIS data. Authentication issues are often affected by which authentication methods are used by information providers and also the level of take-up of ATHENS is relevant to whether it will be suitable for HeadLine. Significant progress has been made in this Workpackage though, which will be continued as the project progresses.

### **Workpackage 4 - Personal Information Environment**

One small change made during this period is that the PUE (Personalised User Environment) has been renamed the PIE (Personal Information Environment) - although this is a fairly minor alteration it reflects the slight shift in emphasis onto information and presenting 'views' of resources based around a user's status and interests.

PIE development has been a beneficial process, which has involved input from all team and Project Board members, and most discussion has taken place during Team Meetings. This discussion has been assisted by visual aids, such as dummy Webpages, and it has been useful to begin to visualise and consider how the various tools and features will interact to provide a service to users.

During Phase 2 work on the PIE has gained momentum - the PIE has been researched and defined by several tasks outlined below.

#### **4.1 User Requirements Study**

Although a direct user study has not been undertaken, considerable progress has been made in gaining an understanding of what users want from the system, firstly by looking at what they already ask for (analysis of information desk enquiries) and secondly by consultation with staff, to assess desired patterns of working and features of HeadLine which would be useful. Actual user consultation will be undertaken towards the end of the second phase of the project, when there is a test system for them to react to. (this is covered further in section 1.2).

#### **Research into Web portals**

At the beginning of Phase 2 we undertook research into commercial Web portals (i.e. personalised e-commerce Websites such as 'My.Yahoo!') which offer user-customisable interfaces and content. The objective of this activity was to identify and reverse-engineer features that could be translated into interfaces for hybrid library users, and deal with library resources as content.

Some structured time was spent looking for suitable portals and then each one was tested and examined. An initial report listed good and bad features common to portals and suggested those that could be used in HeadLine. A page of links has been created and will be maintained, so that the team can monitor new features and functionality that is developed during the lifetime of the project.

#### **PIE description and demos**

Following on from the previous research the team looked at the best features of portals and worked them into a prototype HeadLine PIE. This prototype includes a description of how the PIE will work and dummy html pages showing what PIEs might look like for various subjects and personalisation preferences. The PIE description and demos (available via our public Website) have been approved by the team and Project Board and will be developed (and built) during the rest of Phase 2.

#### **4.2 Define PIE Functionality**

The aim of this task is to specify the functions to be performed by the HeadLine Personal Information Environment (PIE). This includes the way in which user profiles will be matched against resource descriptions and the extent to which session-based searches will be managed within the HL system. This specification avoids any assumptions of the user interface. This task was completed early in Phase 2 and the agreed prototype for the PIE is mounted on the Team Website.

### **PIE Datamodel**

The PIE datamodel is currently being developed, a first draft of the model is on the Team Website and is under discussion by the project team.

## **Workpackage 5 - Discovery-to-Access Tools**

Discovery to Access tasks were not scheduled for Phase 1 although the Phase 1 Evaluation Report mentions SHERLOC which was commenced during that period. In Phase 2 further progress has been made on the implementation of SHERLOC and also some more document delivery options have been investigated.

### **5.7 SHERLOC**

The aim of this task is to design and prototype a system for indicating shelfmarks (or other locational references) for full-content items, which cannot be delivered to the end-user, on layout maps of partner library sites, presented graphically via HTML pages. Significant progress has been made on this and SHERLOC (SHElved Resource LOCator) has now been developed and Beta-tested at the BLPES, where it was seen as a very useful tool. It will be used during the library's occupation of temporary premises from September 1999 to mid 2001; the other two partner sites are also in the process of implementing SHERLOC for use there.

### **5.9 Document Delivery Service (using Ariel)**

The project is investigating a pilot document delivery service between the three project partners. This will have to be defined so that it does not impinge upon existing services (e.g. Lamda) but deliver useful material between sites, using the consortium agreement as a basis and Ariel software. A proposal for this was agreed by the Project Board on the 24<sup>th</sup> June, subject to confirmation of practical details by relevant institutional colleagues. It was felt that if a HeadLine document delivery service can go beyond current services (either by delivering different types of material, or delivering electronically to the end-user) then it will be worth doing, otherwise there will be no benefits in this service over existing services. The project has also specified a Discovery to Access component that will provide effective paperless document delivery direct to end-users from Ariel-based suppliers.

## **1.1.2 Project Management Activities**

The project management documents completed during this period are listed in the **Phase 1 Evaluation Report** (although some of these were completed prior to this reporting period and are detailed in the **First Year Annual Report**). Most of these documents are available on the Public Website: <http://www.headline.ac.uk>.

### **0.7 Phase 2 Technical Workplan**

This document has been agreed and forms the basis of work progress for the period March 1999 - March 2000.

## **Steering Committee**

The Steering Committee was established at the beginning of the project and comprises academics from partner institutions, and from the information sector, as well as representatives from vendors and information providers. During this reporting period the Steering Committee has developed a more active role in guiding the project, endorsing decisions and providing expertise in key areas such as licensing, dissemination and strategic development.

### **Steering Committee Meetings**

14 December 1998 - Dissemination achievements and strategy, project progress and model licence.

6 May 1999 - Phase 1 Evaluation Report, Demonstrations of HeadLine prototype tools (SHERLOC, HeadLine Resource Finder, Electronic Journals database), review of dissemination.

Margaret Coutts of the University of Kent at Canterbury has been Chair of the Steering Committee since its inauguration, and has contributed a great deal of time and useful advice to the project in this role. Due to staff changes at the LBS and LSE two new members have been recruited onto the Steering Committee; these new members joined the May 1999 meeting. The project aims to recruit additional academic representatives from the three partner sites for the Second Phase of the project when we will need support from academics within partner institutions to help recruit test users and to promote the system to their students.

### **Membership of the Steering Committee**

Ms Margaret Coutts (Chair), University Librarian, University of Kent at Canterbury

Dr Colin Harris, University Librarian, Manchester Metropolitan University and JISC/CEI representative

Professor Danny Quah, LSE

Dr Jeff Sampler, LBS

Dr Mike Herman, University of Hertfordshire

Mr Albert Prior, Publisher Relations Manager, Swets & Zeitlinger

Mr Peter Gethin, Managing Director, SIRSI UK Ltd

Ms Jenny Walker, Silver Platter

Ms Di Martin, Director of LIS, University of Hertfordshire

Ms Maureen Wade, Deputy Librarian, LSE

Mr Russell Altendorff, Director of Information Systems Division, LBS (from February 1999)

Ms Helen Edwards, Head of Library, LBS (from June 1998 - February 1999)

Mr David Dalby, IT Services Manager, LSE (from February 1999)

### **Project Board**

The Project Board comprises a senior staff member who plays a key role in library strategy from each of the three partner institutions, and the Project Manager. The role of the Board is to advise the team and direct the project at a strategic level, as well as matching project aims with institutional policies and developments. The Project Board is chaired by the Project Director.

The Project Board has met approximately every two months, with meeting venues normally rotated between the sites of the three partners. Communication is also maintained amongst this group via the project board mailing list (hosted on Mailbase). Agendas, minutes and other formal reports to and of Project Board meetings are routinely copied to the Chair of the Project Steering Committee, and to the eLib Programme representative member of the Steering Committee.

### **Project Board Meetings during the year**

23 September 1998, LBS Library

19 November 1998, UH St Albans Library

14 January 1999, LSE Library

25 February 1999, LBS Library

24 June 1999, LSE Library

### **1.1.3 Dissemination Activities**

The following dissemination activities were scheduled for this period of the project, items in **bold type** are extracted from the **Communications Plan** (i.e. communication aims) and the plain text underneath is a description of HeadLine's progress in these areas. As this reporting year covers the first and second phase of the project some of these activities may have also been achieved

during the first annual reporting year and some are yet to be performed. The tasks scheduled for the first and second phases of HeadLine fall into the same categories (outlined below), but the progress of the project will dictate the content of what is disseminated.

### **General awareness**

The Website has been used to disseminate material to all interested parties and the url ([www.headline.ac.uk](http://www.headline.ac.uk)) is included on all project correspondence, email, presentations and literature. Branding has been made consistent by the use of the HeadLine logo which appears on all letter paper, Webpages, presentations etc., and the use of project stationery and business cards. Articles on HeadLine and related topics have been published in several journals throughout the first phase, and these are listed in the Appendix to this document.

### **Contribution to debate**

Team members have contributed to relevant discussion via membership of mailing lists in various areas, and have also participated in conferences and seminars. Several papers have been given by team members on various topics (authentication, collection development) as well as general presentations about the project which have been made to staff in partner sites, visitors, other projects etc.

### **Project Reports**

All published documents are made available freely to the public via the Website; this Annual Report and an outline of the technical workplan for Phase 2 will be accessible from here.

### **Project Newsletter**

The first HeadLine newsletter was produced at the beginning of Phase 2 - it was based on the information desk enquiries observation and staff consultation event and is entitled '*What do users want from the hybrid library?*' It was sent to a mailing list of about 400, distributed in partner sites, advertised on various email lists and on the public Website. Reactions to the newsletter have been very positive and another one (on the PIE) will be produced for the Autumn. The newsletter will be produced and distributed on a fairly regular basis, but only when the project has something to write about. Each newsletter is based on a particular topic relevant to HeadLine's current activities, rather than providing a general news update on what the project is doing. This adds value to the newsletter, making it similar to a journal article, as it provides research results and a short study on a particular topic.

### **Dissemination Achievements**

A list of dissemination achievements undertaken in this period is appended to this report - this covers the period of August 98 - July 99, previous activities are detailed in **the First Year Annual Report**.

## **1.2 Changes to the project**

### **ROADS**

The decision not to use ROADS in the HeadLine Resource Finder was a major change to the project, as initially the project intended to use ROADS (as another eLib project) and to take advantage of the user-friendly admin interface. However extensive testing showed that the flat database structure was inadequate for recording multiple instances of resources. The effect of this decision was that some time was lost due to installing and testing ROADS, then finding it to be unsuitable and having to start again with another database. However sufficient time for testing was set aside in the initial project plan, so that progress is not too far behind schedule.

### **User Studies - Staff consultation Event**

The project plan scheduled a user study for the first phase of the project to establish requirements of the system, however as the first phase progressed it was felt that a user study would not be very helpful without a test system to show users. It would be very difficult to describe what Headline would do and then ask users to say if they liked that, without having something to show them. Also until the PIE prototype was made it would have been difficult even to describe what the system would do, as this had not been agreed by the team. The decision was taken to delay a user study until we could offer users more information and

something to try out. This did not delay the project or change its direction but it meant that some other way of gauging user needs was necessary. Information desk enquiries were studied, to see what users are currently asking for, (so that HeadLine could try to fill these gaps and test whether the proposed HL features would be needed). This was followed up by a Staff Consultation Event, to test the findings of the Information Desk Enquiries research and to go further than this by gaining an insight into library staff views of user needs and how HeadLine could help users

A 2-page summary of the results of these activities, entitled 'What do users want from HeadLine' will feed into the design of the Personal Information Environment in Phase 2. This summary is also available on the Public Website, and the main content of this was worked into the first HeadLine Newsletter (see Dissemination Section 1.1.3 for more details of this).

The findings from this activity were largely in line with what HeadLine plans to do, showing that the project is on-target to provide a service that will be perceived as useful; however additional ideas were received from participants when they were asked what they thought the hybrid library should do for users. The most popular idea is to help users find material and resources - either physically, using interactive maps, or virtually with integrated resource databases and help choosing and using resources. These results fed into the design of Phase 2 where the PIE is prominent and more development work is progressing on discovery to access tools.

This change of direction does not affect the project negatively because the same data was obtained by a different method - all the evaluation mechanisms were put into place during this period and user testing will be undertaken in the second phase of the project, as scheduled in the project plan.

#### **Use of institutional MIS data**

Our initial plans involved the early identification and analysis of available sources of existing MIS (Management Information Systems) data held about users and potential users of hybrid library services in each of the partner institutions, and using the findings of this exercise to shape the interface that a HeadLine system would create for users. However, we underestimated the solidity of some of the organisational barriers to access to this data. Our change of approach has been to define the requirements of a HeadLine system by building our own 'model' MIS on a relational database, using this in development of other system components, and planning subsequently to use it to define a 'view' to map the connections between HeadLine and real instances of institutional MIS.

### **1.3 Main Objectives for this period**

The main objectives for this period were outlined in the CEI milestones - these have been met as detailed below (dates in brackets show the actual dates of the CEI timings):

#### **(August 1998) 8 months Resource compendium design (WP)**

The resource compendium has been completed and lists all potential resources for the HeadLine service from all 3 partner sites. The resources have been prioritised for inclusion with technical requirements and vendor information for each one. A sample set of resources has been imported into a test HeadLine ROADS database and is currently being transferred to a SQL database now that ROADS has been rejected by the project.

#### **(December 1998) 12 months Resource presentation and service environment prototype (GA)**

##### **Year 2 technical plan (WP)**

##### **Evaluation of phase 1**

The resource presentation and service environment prototype is currently underway using an open source SQL database based on the Resource Description model. The previous ROADS database has been tested in partner sites, demonstrated at Libtech and other events and guest access made available to selected parties via a secret Website.

The year 2 Technical Plan is now subsumed into further development of the Technical Workplan for Phase 2, which has been completed. The **Phase 1 Evaluation Report** (appended to this report) provides a summative evaluation of the first phase of the project.

**(June 1999) 18 months****First deployment of integrated model (GA)**

The PIE has now been agreed by the team and a document explaining the PIE (in general and technical terms) has been produced. This is accompanied by a set of 'dummy' Webpages which show how the PIE would present and organise information for the user; these pages are being demonstrated at talks and are the focus of dissemination activities for Summer 1999. The PIE datamodel has been drafted and is currently being discussed by the team. Guest access to this is available to selected parties via a secret Website.

**1.4 Outputs from the project**

The project has produced deliverables in the form of documentation and reports and also prototype software:

**Documents**

- Analysis of Information Desk Enquiries
- What Users Want - 2 page summary based on information desk enquiries work and Staff Consultation at partner sites
- Model Licence working paper and Model Licence (based on NESLI licence)
- Phase 1 Summative Evaluation - Adopted - Review of first phase of the project
- Newsletter (see Dissemination section)

**Prototypes**

- SHERLOC - SHElved Resource Locator (see section 1.5)
- HeadLine Resource Finder - previously based on ROADS, now moving to an SQL database
- PIE - Personal Information Environment (see Workpackage 4)

**1.5 Major Successes**

The major successes during this period are as follows:

**Library Resources**

The team has completed a comprehensive analysis of Library Resources and developed a sophisticated datamodel for resource metadata, building on previous work done in other eLib Programme projects and the wider information science community.

**Library Users**

This period has seen a significant study and analysis of Library Information Service Enquiries made by users, supplemented by consultation into what users want from the hybrid library, the publication of which has also provoked interest and contacts from institutions not previously connected with the HeadLine partnership or the eLib Programme.

**PIE**

The Personal Information Environment (PIE) is a particularly interesting feature of the Headline model; this will provide a tailored service for resources and other library services, enabling users to easily find resources relevant to their studies and also to build up portfolios of their favourite resources. As described earlier the PIE has been designed and agreed by the team during this year and will be the focus of summer dissemination activities.

**Dissemination**

The project has established a successful ongoing dissemination campaign, giving talks and articles on pertinent subjects at relevant stages of the project. During Spring 1999 dissemination has concentrated on user requirements but during Summer of this year the focus of

dissemination will be the PIE. Dissemination activities have promoted awareness of the aims, activities and achievements of the Project amongst library staff of the partner institutions, and the wider library community. The newsletter was also initiated during this period and has proved a very effective way of raising interest in the project and positioning HeadLine as a thought leader in key areas of the hybrid library.

### **SHERLOC**

The SHElved Resource LOCator (SHERLOC) has proved very popular within partner sites and the library community as a whole. SHERLOC provides a simple search interface to allow users to locate shelfmarks, facilities and subject collections within the library. The need for this tool was confirmed by user studies, showing that location of material and facilities was the most common request received at all partner sites. This tool was demonstrated at Libtech 99 and is currently being implemented and tested in all partner sites, and is available for guest access on our public Website.

## **2. Learning from the process of implementation**

### **2.1 Difficulties encountered**

In the original Project Plan and Phase 1 Technical workplan we stated that MIS data would be used as the basis for user profiles and enabling the system to 'know' what the user is entitled to access. MIS administration at each partner site has made this hard to achieve as it is technically difficult to extract, and also, as this is sensitive information, it is not easy to get access to this data. The team is working around this, trying to find other ways of getting this data (e.g. getting it from users when they log in for the first time) or improving access to MIS systems, but this has set the project back in this area. Our alternative approach is detailed in section 1.2.

Institutional circumstances have caused some difficulties for the project so far, for instance the LBS library move in Summer 98, the UH library system change (from Libertas to Voyager) and the LSE library decant (Summer 99) have all posed some challenges to the team, in terms of taking up staff time, altering working environments and changing systems that HeadLine will be using. Some of these factors also provide opportunities for HeadLine as described in section 2.4.

### **2.2 Influence of other projects and the eLib programme**

HeadLine has worked with other projects, particularly those in Phase 3 of the eLib programme. The Project Manager attends regular meetings with the 9 other project managers - these meetings keep the managers informed of what the other projects are doing, and provide mutual help and advice in areas of work (e.g. contacting information providers). Dissemination has frequently been undertaken in collaboration with other Phase 3 projects, e.g. journal articles, talks and the joint exhibition stand at Libtech 99. This interaction has proved beneficial to HeadLine, in terms of keeping up to date with hybrid library development, sharing resources and ideas and also sharing the work of dissemination (various managers representing the projects at different events, taking flyers from other projects to conferences etc.). The majority of activities that have been undertaken in common with other eLib Programme Phase 3 projects are detailed (in Appendix 1) as Dissemination activities.

eLib Concertation days have also been very useful, again by maintaining contact with other projects and teaching about relevant initiatives in the UK and world-wide.

Not surprisingly, HeadLine has good relationships with the other 'e-library' projects based at the LSE (Decomate 2 and M25 Link) and these have enabled sharing of some work and resources, shared dissemination activities and transfer of good ideas. HeadLine has also made contact with other relevant projects in Britain, Europe and other parts of the World with an interest or involvement in common with HeadLine.

### **2.3 Changes made to HL plans and reasons for these changes**

As detailed in section 1.2 some changes have been made to our plans in the areas of database tools for describing resources, the methods we have adopted for determining the needs of end-users, and our approach to the use of institutional data about service users.

### **2.4 Unanticipated outcomes or results**

The SHERLOC shelfmark and facilities locator has proved more popular than expected and one unanticipated outcome is related to the library move at the LSE. SHERLOC is considered to be very useful for helping users (and staff) locate material in the temporary building and again in the new improved LSE library. This means that staff at the LSE are more interested in the development of SHERLOC and willing to assist in inputting data and trialing it. The use of SHERLOC for the decant will be a valuable test of the system and a way of getting it used and accepted within the LSE and incorporated as a standard navigational tool.

## **2.5 What have we learnt?**

Apart from the knowledge acquired through the development and research processes during this phase we have learnt a lot about project management and administration. For instance we have learnt that interaction with existing institutional systems can be problematic and entail lengthy negotiations (e.g. the MIS data). In future stages we will allow more time for interaction with institutional systems and departments and also try not to make anything that is developed for HeadLine too dependent on these external factors.

We have also discovered that although open source software developed by previous eLib projects can be useful it may not necessarily be adequate for our needs, so adequate time must always be allowed for testing and implementation of software.

We have also learnt to be more realistic in our expectations and define what we want the outcome of each task to be. Particularly with development work it is easy for tasks to grow and during this year tasks could sometimes become interminable as it was unclear when a task had been completed. This learning has been implemented in detailed planning for Phase 2 when team members were asked to define new tasks, work involved in them, and to define what the outcome or deliverable would be, in a more controlled iterative process. Closer monitoring of the actual staff time spent on specific tasks (to gain feedback on our own estimates) was proposed at the planning stages of the project, but was not ultimately agreed by the whole Project Team. A similar monitoring method was proposed and agreed during our detailed planning of Phase 2, and is now being implemented. These measures should ensure tighter controls on work, and enable the team to know with more certainty when a piece of work has been completed.

### **3. Participation in the eLib programme**

#### **3.1 *Role of the eLib programme office***

The programme office has been very helpful in offering dissemination guidelines, advice and visiting the project (in January 1999) to note our progress. Financial assistance was also provided to support the joint participation by Phase 3 projects in the Libtech Exhibition (see below), for which we are most grateful.

We believe that the programme office could perhaps host more concertation days on requested topics, and also undertake a more pro-active co-ordinating role between the projects (individually and collectively) and other strands of JISC activity. For example, maintenance of some oversight (and possibly even influence) of the national calendar of relevant dissemination 'events' could be more effective if exercised by the programme office, rather than by each project. There is also some concern that the views and findings of all projects are not being taken into consideration by standards-setting initiatives (such as MODELS), and that this is a situation that could be improved by action from 'the centre'.

We are also somewhat concerned about the effectiveness of the overall evaluation of the programme, and the feedback provided to projects from this process. In particular, it appeared (during year 1 of the project) that the Tavistock Institute would play a more significant and supportive role in shaping our own evaluation activities, and in providing feedback to us based on their own evaluation of our progress. For example, it would have been useful to have been able to learn from their 'synthesis' or evaluative summary of First Year Annual Reports produced by ourselves and related projects, but this is not yet available to us in finalised form at the time of writing this Second Year Annual Report. It has not, therefore, provided any helpful guidance of our second year activities, and (given that some pre-planning is necessary and desirable) is unlikely to be of any help in our third year.

#### **3.2 *Scope for co-working between projects***

Projects could usefully co-operate when approaching vendors together, especially as they usually want the same sort of benefits, i.e. extended or off-campus access to materials, more flexible licensing conditions etc. If all the projects approach vendors at various stages in their lifetime with similar requests there is the chance that information providers will begin to feel 'eLib fatigue,' also as individual projects we probably do not have much influence. However if we approach vendors as one, with the same requests and the same standard licence, offering the same benefits and publicity then there is a greater chance of success and of influencing policy.

Projects could also co-operate by testing each other's systems and visiting one another to pick up examples of good practice - this already happens to an extent with the regular meetings between project managers, but further co-operation could be useful. However most projects are on strict budgets and timescales so extensive visiting and testing programmes may not be possible.

In fact, more collaboration is probably occurring between all projects (the five 'hybrid libraries', four 'clumps' and the CEDARS project) in Phase 3 of the programme than may be evident: project managers have established an effective network of co-operation between themselves, and some of the activities that are formally recorded as dissemination also act to effectively exchange information between the projects.

## 4. Interim evaluation results

The main areas for evaluation during this period of the project, are listed in the **Evaluation Plan** and a summary of progress in these areas follows. The items in bold type show the tasks defined by the **Evaluation Plan** and the text beneath is an explanation of what has been done in this area; bulleted items show the documents which relate to these tasks.

### 4.1 *Review of activities outlined in Evaluation Plan*

#### **Spring 98: Evaluation of resources in sites, standards available and licensing agreements**

Although this was originally scheduled for Spring 98 this was not commenced till the summer and hence it falls into the period of the 2<sup>nd</sup> eLib year.

Resources in partner sites have been examined extensively and a database of resources with vendors, technical requirements, access policy etc. has been produced. Resources have also been prioritised for inclusion into the HL service, and this was undertaken in consultation by subject experts in partner sites. The main documents produced in this area are:

- Consolidated list of resources (HL-1998-08)
- Framework and Criteria for Prioritising Resources (HL-1998-10)
- Resource Analysis & Classification
- Identification of grey literature resources (HL-1998-11)

Standards available for use in the project have been examined by various team members. ATHENS has been reviewed as a standard for authentication, in conjunction with HeadLine's authentication needs and Jonathan Eaton has given several papers and articles on the subject (see Appendix A for more details of these). The final documentation will be available shortly.

ROADS has also been evaluated as a database for HeadLine's resources, and a prototype ROADS database has been installed in two of the partner sites as part of this activity. As explained in section 1.2 this is currently being replaced with an SQL database. The documentation and prototype ROADS database are available internally on the Team Website.

Standards at partner sites have been assessed so that the system will be able to work at all partner sites. Technical requirements for all resources have also been measured as part of this task, and an ideal specification for the HL system has been formulated.

Licensing agreements have been extensively examined for resources at partner sites. Current 'model licence' initiatives have also been studied and a model licence for the HeadLine system has been devised. This licence is based around the general model licences available (particularly the NESLI licence) and will be used when approaching vendors for better licensing agreements for services accessed via the HeadLine system.

#### **Summer 1998: Evaluation of desired content of HeadLine**

The resource analysis work included looking at grey resources and course materials (such as reading lists and teaching material). This activity also included looking at sources available to users and those used. Analysis of log files has commenced, to see the most popular resources accessed by users, but this has been superseded to a degree by Resource Prioritisation which (in conjunction with library staff) looked at how popular resources were, as well as how easy they would be to incorporate into the system.

Analysis of potential users has taken place, and reading lists and resources available and used have all been analysed in Workpackage 2 'Resources'.

#### **Autumn 98: Recruitment of user panel and studies of user needs, views, existing use of services**

This has not been completed as a decision was taken to delay recruitment of the user panel until a system is available for them to test. This activity has been moved into Phase 2.

Investigation of user requirements of the system was performed using the Analysis of Information Desk Enquiries work and the Staff Consultation Event which supplemented this research to identify typical enquiries that users want answering, user needs and preferences and patterns of working. These showed user needs by measuring frequently asked questions at all sites; also the Staff Consultation Event provided an insight into user requirements and current use of services.

**Autumn 98: Feedback from target groups of component parts of HL service when launched**

Component parts of the HL service have not been launched at the time of writing and the recruitment of the user group has been deferred to Phase 2 so that feedback could not be obtained during Phase 1. However use log has been prepared, so when the service is launched the various feedback mechanisms can be utilised to assist design of the service.

**December 98: Review of year 1**

This has been fulfilled by the completion of the **Phase 1 Evaluation Report**, which reviews the first phase of HeadLine (January 1998 - February 1999). NB this was delayed to the end of Phase 1 and was produced in May 99.

**Spring 99: Evaluation of hybrid library model, i.e. integration of components - testing by library staff, academics and users**

Although changes to the project plan have meant that the HeadLine system has not been launched during this year, some testing of component parts has been undertaken by library staff at partner sites (particularly for the SHERLOC resource locator).

**Summer 99: Development of information content**

Again, as the system has not been built at the time of writing the information content has not been formally developed. However the resource compendium is reviewed and updated as an ongoing process (for instance when new products are introduced to the library at any site this is updated in the compendium). Also the proposed content of HeadLine is always under review and altered to reflect changes in institutions and perceived user requirements.

## 4.2 Summary of Evaluation Activities

The following activities were scheduled for Phase 1 of the project:

Activity	Stakeholders involved	Site	Time-scale	Deliverable
Focus Groups	Partner sites, Students, Librarians, Academics	All sites?	1 per year	Internal report
Interviews	Partner sites, Students, Librarians, Academics	All sites?	1 per year	Internal report
Evaluation of Standards	Project Team	To be confirmed	Phase 1	Fed into design of HL
Evaluation of Resources	Project Team with librarians and academic staff	All sites	Phase 1 (and some modification in Phase 2)	Fed into design of HL
General project evaluation	Project Team	To be confirmed	All phases (most in Phase 3)	Formal reports (annual and final)

All of these activities have been carried out, focus groups were held with library staff from all partner sites, to determine user requirements of the system, and which common enquiries HeadLine could usefully answer. Library staff from each site were also consulted as part of the resource prioritisation task, to determine which resources should go into the system first.

Evaluation of standards and resources have been undertaken as described above and general project evaluation forms the basis of the **Phase 1 Evaluation Report**.

## 5. Future development

### 5.1 *Main objectives for the next year*

The original (Project Plan) objectives for Phase 2 of the HeadLine Project were stated as:

#### **Synthesis of hybrid library working model (stage 1)**

- production of the resource compendium database in line with user specification
- population of the resource compendium with library resources (all sites)
- consolidation of hybrid library components so far developed into working model
- implementation of working model at institutional sites

#### **Deployment of working model in institutions**

- testing of the model by library staff (management and information provision) and users (teaching, learning and research)
- development of the information content, especially from the perspective of subject librarians and teaching staff
- enhancements to the resource base; investigation of including resources not traditionally managed by the library such as software or computerised teaching materials in the resource compendium

#### ***Deliverables***

- multi-perspective evaluation of the hybrid library working model

#### **Development of feedback mechanisms**

- development of methodology for tracking resource use
- investigation of the use of qualitative feedback measures (on-line dialogue, evaluation forms etc.)
- implementation of individual configuration of resource presentation based on user preference/behaviour
- investigation of proactive alerting strategy based on user behaviour

#### ***Deliverables***

- prototype feedback component

#### **Enhancement of service environment**

- ongoing development from Phase 1

### 5.2 *Proposed Changes in overall direction*

In essence, we have found no reasons to amend these objectives and deliverables, supplemented by a continuation of work started in Phase 1 on the issues (particularly those concerning user metadata) in which we have found ourselves breaking new ground.

Phase 2 of the Project has been planned in detail to span the period March 1999 to March 2000, allowing for one (possibly two) public releases of an integrated HeadLine Personal User Environment to users in the partner institutions. These will be preceded by public availability of non-integrated components (such as cross-media collection-level search gateways and 'discovery-to-access' tools) as these are developed. Completion of Phase 2 will allow Project staff resources in Phase 3 (April 2000 to December 2000) to focus on studying changes in user behaviour, and refinements to our datamodel, software tools and supporting databases.

In terms of specific risk analysis for Phase 2, the move of the LSE Library to temporary accommodation (due between June and September 1999) is likely to have some effect on the

Project, but that this should not require any further reconsideration of scheduling. Similarly UH are due to implement a new library system over the same time period which may take up staff time and affect resources.

We would expect to continue to be involved in dissemination activities and collaboration with related projects at a similar level, during Phase 2, to that established in Phase 1.

### **5.3 *Interim conclusions about the results and implications of the project.***

In the Project Plan we set ourselves ambitious goals to research possible solutions to a number of challenging problems, which will need to be solved to determine the requirements for implementation of 'the hybrid library'. We have achieved the majority of those goals, and even though we have found a few to be more difficult than we anticipated, we have made significant progress with them, and documented our findings in ways that should benefit not only the subsequent phases of the HeadLine Project, but also other projects and development work in this field.

Our investigation of relevant Library Resources and the resulting datamodel we are developing for resource metadata, whilst building on previous work by other eLib Programme projects, has led us to the conclusion that previously accepted models may not be entirely sufficient, particularly for dealing with resources that are available through more than one method of electronic access or delivery, under complex sets of licence conditions.

We have made significant progress in researching the requirements for a corresponding datamodel describing Library Users, but have discovered more complexity than at first anticipated in its practical implementation. Our assumptions were optimistic about institutional organisation and management regarding MIS, with regard to the availability of independently-maintained data about users. Achieving longer-term Project objectives of creating a user environment that can adapt according to attributes of the user is absolutely dependent on such data, and so we are exploring alternative ways in which we can take the initiative to establish such a directory of library users, with due regard for issues such as privacy of personal data.

Our analysis of Library Information Service Enquiries has quantified some of the anecdotally-based assumptions about "what users ask for", and has also revealed information about their information-seeking behaviour that does not seem to have been covered by previous studies. Publication of the results of this work has provoked interest and contacts from institutions not previously connected with the HeadLine partnership or the eLib Programme.

The staff involved in HeadLine have participated in a wide variety of activities undertaken collectively by projects funded under Phase Three of the eLib Programme, in several instances taking on the responsibility of leading or co-ordinating major joint initiatives.

We have met or exceeded the targets that we set ourselves in the Dissemination Plan, promoting awareness of the aims, activities and achievements of the Project amongst library staff of the partner institutions, and the wider library community, and we have preparations in place for timely dissemination to potential users of HeadLine services.

## Appendix 1 - Dissemination Achievements - August 98 - July 99

Date	Event	Name	Details
12-Aug-98	Talk	Headline talk to Southampton University Visitors	Laura Johnson gave a general introduction to HeadLine project to visitors from Southampton university library, together with Decomate and M25 Link. The general presentation was used but reduced considerably to fit into a 10 minute slot and was limited to a general project description, rather than technical issues.
24-Aug-98	Journal	Vine	<p>Authors were invited to submit short papers (2000-3000 words) on any aspect of the provision of secure networked access to electronic information sources by European libraries and information services.</p> <p>John Paschoud submitted the article in August, "An Open (and 'freeware') standard for secure Internet document access"  <a href="http://www.sbu.ac.uk/litc/publications/vine.html">http://www.sbu.ac.uk/litc/publications/vine.html</a></p>
25-Aug-98	Conference	Culture, Learning and the Digital Future	<p>Culture, Learning and the Digital Future</p> <p>A One-day Seminar at Edinburgh -25/26 August 1998</p> <p>60 flyers were sent for distribution - and they also offered to mail out flyers to a longer list for a small fee (£25) - this was not used, but worth bearing in mind for the future.</p>
27-Aug-98	Meeting	Visit from Gaynor Austen	<p>Gaynor Austen (Director of Library Services from Queensland University of Technology) visited for an introduction to HeadLine.</p> <p>John Paschoud had a meeting with her, and spoke about headline and technical aspects</p>
1-Sep-98	Conference	The future for Electronic Reserves	<p>One day event at Templeton college where the on-demand related projects feed their major results back to the publishers and interested librarians. Idea is to focus on the various software components that resulted and provide a platform for demonstrating our successes with copyright management systems - with live demonstrations.</p> <p>Laura Johnson attended - not really dissemination as no opportunity to distribute flyers.</p>
7-Sep-98	Visit	Visit from Finnish 'eLib' projects	<p>A group of Finnish 'eLib' projects visited the BLPES for a short overview of the projects hosted at the LSE. They are members of the steering group of National Electronic Library-programme, who are launching a development project this year to create a prototype of graphical user interface. They are aiming to provide single search access to various types of information resources: OPACS, ref. dbase, subject gateways etc. John Paschoud attended and gave a short overview of the project, and discussion of difficulties/obstacles etc.</p>

Date	Event	Name	Details
14-Sep-98	Visit	Visit from Copenhagen Business School	A group of staff from the Copenhagen Business School library visited and amongst other things wanted to know about projects/new developments. John Paschoud attended this meeting and talked about HeadLine - didn't use a presentation but a more informal introduction and chat about the project.
15-Sep-98	Workshop	Institutional Web Managers workshop	Brian Kelly ran, in conjunction with Netskills, a workshop for institutional web managers at Newcastle University from 15-17 September. HeadLine sent 100 flyers for display.
15-Oct-98	Talk	Leeds conference	Leeds hosted a regional event with a joint presentation by Hybrids projects, on 15th Oct 98. Jonathan Eaton attended and gave a talk on authentication
15-Oct-98	Meeting	Visit by German projects	5 visitors came - from German libraries and library projects, and were given a general introduction to the projects followed by a discussion, Laura Johnson gave the talk and John Paschoud came to answer their technical questions. Their Website is at <a href="http://www.ub.uni-bielefeld.de/digibib-nrw/">http://www.ub.uni-bielefeld.de/digibib-nrw/</a>
26-Oct-98	Talk	University of London Libraries Committee	This was held at the LSE and John Paschoud gave a short HeadLine presentation. It was a 10 minute, non-technical presentation, describing the aims for the users etc.
5-Nov-98	Talk	Visit to QMC, Edinburgh (library school)	Laura Johnson was invited by Hazel Hall (H.Hall@mail.qmced.ac.uk) to give a lecture on HeadLine from an electronic collection development perspective.
23-Nov-98	Talk	Visit by ALISS librarians	A number of members of ALISS academic Librarians in the social sciences will be coming for a meeting at the LSE and Heather Dawson organised a few short presentations before the meeting. Laura Johnson gave a short talk on HeadLine.
25-Nov-98	Talk	Aslib Computer group	Jonathan Eaton gave a talk on HEADLINE (issues of controlling access and authentication in integrating traditional and electronic services). Other hybrid projects also spoke about their projects and related issues.
15-Dec-98	Talk	Hylife Conference	Jonathan Eaton gave a talk on HEADLINE: 'Making the Gateway Secure and Invisible'. Other hybrid projects also spoke about their projects and related issues.

Date	Event	Name	Details
19-Jan-99	Talk	M25 Consortium	Laura Johnson gave a brief introduction to the project, with some new slides concerning progress to date and our plans for the 2nd phase (due to begin in March 99). The presentation also included a demo of the HRF - slides area available on the Team Website. The presentation went quite well and there were several questions, about MIS data, the Personalised user environment etc.
1-Jan-99	Journal	RELAY	Stephen Graham wrote an article for RELAY, the journal of the University College and Research Group of the LA, entitled, 'Resource Description in HeadLine'
1-Jan-99	Journal	NRAL	Jonathan Eaton wrote an article for the New Review of Academic Librarianship - this was in conjunction with other eLib projects, and was based around the presentation at the Hylife conference
3-Mar-99	Talk	Loughborough Library School	Laura Johnson gave a talk on the hybrid library (to fit into their 'digital library' course. The talk covered the eLib project, HeadLine's aims, Our view of the Hybrid Library, Progress so far: Phase1, User Requirements, Phase 2, Demo of Shelfmark Locator: Practical Session. The talk went well and there was a good discussion afterwards.
10-Mar-99	Talk	eLib Concertation days	Jonathan Eaton gave a presentation at the eLib Concertation Day entitled, "Authentication - an overview of hybrid library requirements"
June -99	Newsletter	HeadLine Spring Newsletter	A printed newsletter was produced - entitled 'What do users want from the hybrid library?' It was based around information desk observation and the staff consultation event and described what HL thinks users want from a Hybrid library system and how HL is going to meet these demands. It was sent out to a mailing list of about 400, distributed within partner sites and advertised on the Website.
5-July-99	Talk	Talk to SMG	John Paschoud gave a presentation to the BLPES Senior Management Group- this included a demo of SHERLOC, the PIE and HRF.
14-Jul-99	Talk	Talk to library staff (chartership training)	John Paschoud gave this lunchtime talk which included demos of SHERLOC, the PIE and HeadLine Resource Finder

## Appendix 2 - Expenditure Summary

FY 1998-99	Anticipated	JISC grant	Actual	Variation (against Anticipated)	Variation (against JISC grant)
Staffing	£88,445		£90,459	£2,014	
Travel & subsistence	£2,000		£742	-£1,258	
Publishing & dissemination	£1,167		£1,499	£332	
<b>Recurrent subtotal</b>	<b>£91,611</b>	<b>£83,278</b>	<b>£92,700</b>	<b>£1,089</b>	£9,422
(b/fwd from 1997-98)	-----	£20,288			<b>-£10,866</b>
Equipment & software	£12,167		£10,479	-£1,688	
<b>Capital subtotal</b>	<b>£12,167</b>	<b>£8,000</b>	<b>£10,479</b>	<b>-£1,688</b>	£2,479
(b/fwd from 1997-98)	-----	£11,659			<b>-£9,180</b>
<b>Total</b>	<b>£103,778</b>	<b>£91,278</b>	<b>£103,179</b>	<b>-£599</b>	£11,901
				c/fwd to 1999/2000:	<b>-£20,046</b>

### Notes on the Expenditure Summary

The HeadLine Project Proposal that was accepted by JISC cast projected expenditure under the four recurrent and two capital headings listed, over the three (January - December) calendar years for which the project will run. JISC funding was approved on the basis of recasting this unequally into the four (August - July) JISC financial years over which the project spans, under just two aggregated budget heads for recurrent and capital funding, but totalling the same as the Proposal over the three-year period. This results in the project appearing to be over-funded in the early stages, but correspondingly under-funded in its' second and third years. It is therefore more prudent and informative to monitor actual expenditure against the Proposal profile than the funding profile used by JISC.

Anticipated expenditure has been calculated for the twelve month period covered by this Annual Report pro-rata from the amounts under each budget head in the Project Proposal (5/12 of 'project year' 1998, and 7/12 of 'project year' 1999).

The variation between Actual expenditure and Anticipated expenditure shows a net **underspend** of **£599** on the overall budget projection of £103,778 during this financial year.

Underspends of £20,288 (recurrent) and £11,659 (capital) of the JISC grant made in (the part-year) 1997-98 were carried forward with JISC approval. The net variations between Actual expenditure and the JISC grant for the 1998-99 financial year (including brought forward amounts) therefore show the amounts available to be carried forward into the financial year 1999-2000.

Permission has been sought and given by JISC for this virement (totalling £20,046), and also to apply the net underspend on the sum originally granted for capital costs to recurrent costs at the discretion of the Project Board. No further major capital expenditure is anticipated during the

remaining course of the project, and a documented account of all capital purchases made to date has been submitted to JISC.