


**ScienceLive: Video repository to e-learning resource**  
**JISC Capital Programme: e-learning**  
*Cover Sheet (I.)*

<b>Cover Sheet for Proposals</b> (All sections must be completed)	<b>JISC Capital Programme</b>	
<b>Name of Capital Programme:</b> (e-Learning; e-Infrastructure; Repositories and Preservation)	e-Learning	
<b>Name of Lead Institution:</b>	Centre for Applied Research in Educational Technologies, Cambridge University	
<b>Name of Proposed Project:</b>	ScienceLive: Video repository to e-learning resource	
<b>Name of Project Partners:</b>	West Midlands Science Learning Centre (Keele University), Boston College, Northampton College	
<b>Full Contact Details for Primary Contact:</b>		
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<b>Length of Project:</b>	2 years	
<b>Project Start and End Dates:</b>	1/9/2006, 31/8/2008	
<b>Total Funding Requested from JISC:</b>	GBP 200,000	
<b>Funding Broken Down over Project Years:</b>	Year 1: GBP 95,668, Year 2: GBP 104,332	
<b>Total Institutional Contributions:</b>	GBP 135,216	
<b>Outline Project Description</b>		
<p>There is a large and growing body of high-value science video materials available from leading UK educational institutions, but there is no central access to it for lifelong learners.</p> <p>This proposal is to unlock the potential of these materials for lifelong learning.</p> <p>This is a project to facilitate access to higher education throughout the life of the learner, both inside and outside of HE and FE institutions. The project focuses on the learner: What needs to be done to create a compelling service for the learner to access video materials? What processes and policies are needed so that use is both widespread and effective?</p> <p>The project is designed to work in a specific domain, that of the use of video materials in the teaching and learning of science, and in particular materials designed to encourage aspirations. It makes use of materials available through the ScienceLive initiative.</p>		
<b>I have read the Circular and associated Terms and Conditions of Grant at Appendix B (Tick Box)</b>	YES 	NO

## ScienceLive: Video repository to e-learning resource

A bid for the JISC Capital Programme, e-Learning Call

### 1 Cover Sheet (I.)

(attached separately)

### 2 Introduction (II.)

#### 2.1 Overview

There is a large and growing body of high-value science video materials available from leading UK educational institutions, but there is no central access to it for lifelong learners.

This proposal seeks to unlock the potential of these materials for lifelong learning.

This is a project to facilitate access to higher education throughout the life of the learner, both inside and outside of HE and FE institutions. The project focuses on the learner: What needs to be done to create a compelling service for the learner to access video materials? What processes and policies are needed so that use is both widespread and effective?

The project is designed to work in a specific domain, that of the use of video materials in the teaching and learning of science, and in particular materials designed to encourage aspirations. It makes use of materials available through the ScienceLive initiative.

The ScienceLive initiative seeks to deliver some of the best and most engaging science materials aimed at the general public via Internet video, giving anybody access to these materials from wherever and whenever they want to, and thereby radically broadens access to science. The ScienceLive content includes lectures, discussions, and interviews, and ranges from the entertaining and informative to serious discussion of the aspects of the role of science in society. The ScienceLive initiative seeks to unify the best and most engaging video content produced by ScienceLive partners into a single web portal, which will be constantly refreshed through contributions from partners.

Through this proposal, a selection of materials from the ScienceLive initiative will be made available, and turned into an outstanding resource for lifelong learning. The key project objectives are to:

- **develop and prove strategies** for using ScienceLive content to create an e-learning repository for lifelong learning and further education,
- ensure **easy and compelling access** for learners,
- apply innovative, tested **pedagogical methods for e-learning**,
- create a **technical infrastructure to support flexibility, diversity, and extensibility**, taking into account an improved understanding of the human factors in the use of repositories, and
- bring the ScienceLive content into **large-scale use** in order to support lifelong learning, in both formal and informal settings.

We shall work closely with students in FE, looking at how ScienceLive content is relevant to their learning, in order to deliver a personalised and flexible learning experience. Learners will gain access to a high quality e-learning assets, promoting aspirational learning, and thereby widening participation and progression towards HE. The project enhances the ScienceLive assets (e.g. generation of additional meta-data),

constructs a portal (with human and machine interfaces for “anywhere, anytime, any device” delivery), and provides educational evaluation.

The project collaborators include

- West- Midlands Science Learning Centre
- Boston College
- Northampton College
- Learning and Skills Web (BECTA)
- The National Science Learning Centre
- The Darwin Centre Live (Natural History Museum, London)
- Teacher's TV
- Motivate (Millennium Mathematics Project, Queen's Anniversary Prize for Higher and Further Education 2006)
- The Centre for Applied Research in Educational Technologies (Cambridge University)

## **2.2 Rationale**

The focus of much of the work in the introduction of e-Learning is on the supply side; how do we generate the materials and make them available. But at least as important is the demand side. *“As has been demonstrated by the limited impact of EMOL, simply making resources available without giving careful consideration to modes of access, resource discovery and potential users is unlikely to achieve much.”* The present proposal takes as its starting point the availability of a body of high quality materials assembled from higher education, from museums and from television, and will concentrate on the methods of use. Together with our FE partners we will investigate how teaching should change so that it becomes normal practice for the learner to seek out materials of this kind.

The second part of the project involves real use of the materials by a substantial number of FE students (we anticipate 400). The FE institutions view this as a contribution towards their wider adoption of e-Learning methods, and expect to grow from the base they establish here.

Though we restrict ourselves to one type of material (video) and to one domain of education (science), the lessons learned will generalise into other materials and other fields. The use cases we deliver will inform more widely than our chosen areas.

Video is ideal for lifelong learning; it can be used in a large range of scenarios, in both formal and informal settings. It is also ideal for aspiration raising, and various HEIs make video archives of an aspirational nature available online for that reason. Outstanding examples for collections are primarily found in the United States, at universities such as MIT, Stanford, Berkeley, and Princeton. The ScienceLive initiative seeks to be of national significance, bringing together outstanding video assets created across several UK institutions. We seek to engage viewers in science, as well as the broader issues of science in society. The materials that ScienceLive seeks to present are chosen in part for their value in developing aspirations. Among project partners, we have experience in work to excite learners, to cause them to aim higher than they might otherwise have done. This project will make an important contribution to improvements in lifelong learning.

In terms of delivery, materials are typically only available through a single web interface, and in particular formats, which means that the learner has to fit around the learning, rather than the learning fitting around the learner. In this proposal we explore a multi-portal multi-method delivery of materials, so that the learner can make the materials fit around his or her learning experience.

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<sup>1</sup>Roberts, A.L., *A future functional and technical specification for Education Media OnLine*, Swansea University and the Welsh Video Network

### **2.3 Project Length**

The project is to last for 2 years, running from September 2006 to September 2008.

### **2.4 Contribution to the Programme**

#### **2.4.1 Strategic Aims of the Call**

The work contributes to the provision of higher education in science to everyone, both to learners enrolled in institutes of further education and to learners not in formal education. It develops flexible delivery of one particular class of e-learning material, building these into broader personal learning experiences. This would cover, for example, access to presentations on cutting-edge science by international experts at the workplace, or discussions concerning "science in context" (such as the role and impact of science on society).

The project applies existing novel technology, it incorporates extensive engagement with students, it makes use of material explicitly designed to raise aspirations, and it demonstrates the provision of HE both in FE and in other places outside FEIs.

#### **2.4.2 Technological Approach**

We will not develop new technology, but we will exploit existing technology in new ways. The key areas of focus lie in the user interfaces to materials (ease of access, book-marking, analysis of behavioural models) and in machine-to-machine interfaces (using industry standards such as OAI and lighter weight approaches such as RSS). The emerging guidelines of the e-Framework will be observed, in particular as they relate to a service oriented approach and to the use of open standards.

#### **2.4.3 Applications of Technology**

The project contributes to the delivery of personalised learning experiences. The ScienceLive repository will be designed for open access, and resources can be book-marked flexibly, and be easily integrated into resource banks. Video materials will be available for download and streaming, in a range of formats and interfaces. Teachers will be able to download the materials when and where convenient, and take them into class. We address learners both in formal and informal education settings. The strategy is to make access flexible, and to provide the kinds of user interface features that have contributed to the success of major commercial search engines and on-line stores.

## **3 Project Description (III.)**

### **3.1 Deliverables**

Concrete project deliverables are:

- an e-learning repository, with easy access to high-quality materials relevant for teaching and aspiration raising for science in the FE community, drawing on state-of-the-art technologies, equivalent in ease of use to commercial systems, and available to all FEIs in the UK
- use cases for the application of video to FE teaching situations, supporting a flexible, personalised learning experience to learners in lifelong learning
- policy guidance on:
  - best practice for video-based e-Learning materials
  - interoperability and cross-institutional sharing
- greater uptake of e-learning through high engagement of at least 20 teachers across 5 FE institutions, with materials trialled with at least 400 learners
- an evaluation report, based on counts of materials used, formal interviews with teachers and student questionnaires, to include quantitative measures of the impact of changes to teaching and learning methods.

### **3.2 Scenarios**

At present, video-based e-learning assets are underused in teaching and learning. The key change for learner experience brought about by this project is that learners will regularly use video to support their learning. The following scenarios illustrate ways in which the ScienceLive repository might be used.

#### **3.2.1 Aspiration raising in A-level teaching**

An FE teacher sets assignments involving ScienceLive. The students view particular items featuring outstanding scientists, and analyse the content. Students become accustomed to using video in a routine way, and, in doing so, encounter role models. This leads to greater aspiration in their personal development planning.

#### **3.2.2 Mature student using portable video**

A particular mature student has a family, is studying part time, and is commuting to an FE college. He needs flexible access to learning resources, through which he can learn in different modes. He borrows a portable video player (e.g. an iPod) from his FEI, and learns from video while he commutes to college or to work. (Learning from materials other than text-based materials is also highly relevant for students with learning disabilities, which may prevent them from learning effectively from text-based materials.)

#### **3.2.3 Progression towards HE**

ScienceLive encourages learners to progress towards HE. We imagine someone who has done well in A-level science and mathematics, but is now taking some time out to earn money. She considers science-based HE courses unfriendly for women. She accesses ScienceLive materials, she finds role-models in the female scientists featured.

#### **3.2.4 Lifelong learning in old age**

A pensioner, having just retired from a working life in a science-based profession, comes across the ScienceLive archive through browsing the internet. Not only does he find stimulating examples suiting his own interests, but also find out about the Darwin Centre Live presentations, which he might attend.

### **3.3 Performance Indicators**

We identify four key milestones, chosen to assist review of project progress and to offer opportunity for project redirection, should this prove to be needed:

- Publication of revised user and machine interface definitions by March 2007.
- Publication of policies, user guides and use cases for the effective use of HE video materials within FEIs and by independent learners by June 2007.
- Report on the experience on FE students from first phase of material use, with requirements for changes to the interfaces by April 2008.
- Publication of the final evaluation report, together with revised guides to teaching and learning practice in FEIs and for independent learners by September 2008.

### **3.4 Methodology**

The key stages in the project are

- Build on existing policies and standards in order to formulate a framework for local, regional, and national interoperability in video-based e-learning,
- Build ScienceLive based on repository principles, make more assets available in ScienceLive, and add meta-data, in order to support flexible, easy access to our assets,
- Establish new teaching practices incorporating ScienceLive assets,
- Large-scale field trial, in which learners will practically engage in using the archive, with at least 400 learners (across the two FEI partners) interacting closely with ScienceLive during the trial period.
- Draw on experiences to further enhance the archive,

- and finally evaluate and report on outcomes in order to inform policy.

Initial policy, use case and interface definition will draw on earlier work, such as:

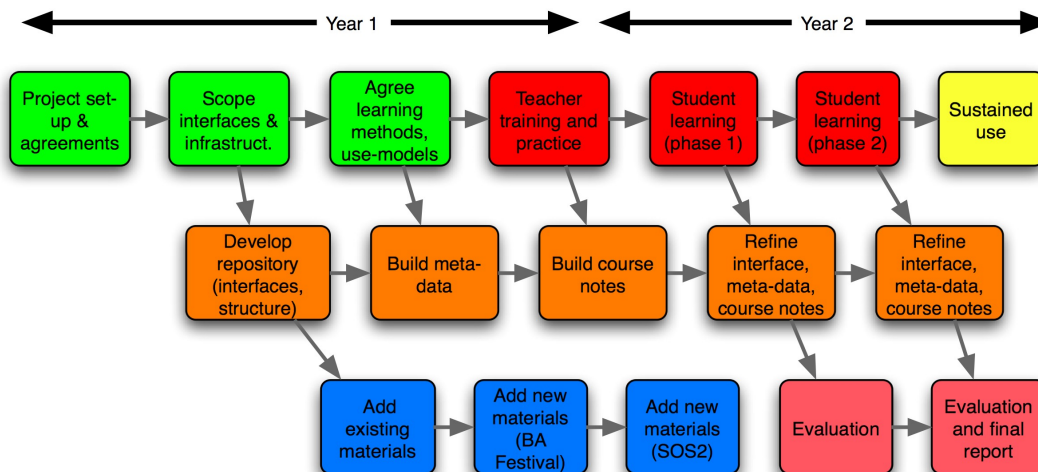
- The Open Earth Archive movie editor (<http://www.bbc.co.uk/calc/sn/>)
- Lifesign (<http://www.lifesign.ac.uk/>)
- Educational Media Online (<http://www.emol.ac.uk/>)
- The JISC Visual and Sound Materials Portal Study ([http://www.jisc.ac.uk/index.cfm?name=project\\_vsmportal](http://www.jisc.ac.uk/index.cfm?name=project_vsmportal))
- ClickView (<http://www.clickview.com.au/news/cstudy.php>)

The project is anticipated to lead to large scale uptake and sustained use of video-based e-learning in the FE sector.

### 3.5 Project Plan

The major elements of the plan are:

- Preparation of methods and practices for a new style of teaching and learning
- Selection and enhancement of materials
- Improving the user interfaces to the materials
- Large scale use of the materials
- Evaluation of the effectiveness of the approaches chosen
- Dissemination of the learnings.



The preparation phase includes the completion of formal agreements among the partners, but also includes the detailed work needed to build on what has gone before. We shall take advantage of existing studies on cross-institutional provision and on the use of e-Portfolios, and we expect to benefit from work on repositories (and in particular the JORUM project). This phase also incorporates the initial preparation of use cases.

We then select about 50 videos from a total pool of about 500 video items available from partners in the ScienceLive initiative<sup>2</sup>. This selection will be made available online, and enhanced by adding meta- data (such as chapter information, subjects, keywords), guides for learners, and teachers (lesson plans and concrete uses cases).

<sup>2</sup> Currently 400 videos are available for us to make a selection from. These are available from ScienceLive partners, either offline on archival media, or online at partners' websites. At least 100 additional video items will be generated during the first year of the proposal (2006/07), bringing the total pool for selection up to 500. For these new video items, we will also be able to respond to requests for content on particular topics.

We use state of the art ideas to deliver video flexibly and in a learner-centric way. Currently, materials are typically only available through a single web interface, and in particular formats, which means that the learner has to fit around the learning, rather than the learning fitting around the learner. In this proposal we explore a multi-portal multi-method delivery of materials, so that the learner can make the materials fit around his or her learning experience. The project deployment will be informed by JISC technical requirements and collecting requirements studies for EMOL.

Led at first by our existing FE partners (Boston and Northampton colleges) and then supported by other FEIs to be introduced through the West Midlands Science Learning Centre at Keele, the main phase of the project is the use of video materials in the 2007- 2008 FE academic year. The partners will design sustained use for the years that follow the project.

### 3.6 Timetable

2006	Sept	Project Start
2006	Q4	Completion of formal consortium agreements
2007	Q1	Publication of revised interface definitions and implementation of these
2007	Q2	Publication of policies, user guides, use cases
2007	Q3	Briefings and initial practice for participating FE teachers
2007	Sept	Start of first phase student use based on FE teaching
2008	Q2	Start of second phase student use, both within and outside FEIs
2008	Q3	Completion of evaluation reports
2008	Sept	Final reports and project completion.

### 3.7 Project Management

The project will be executed by a consortium consisting of the following partners:

- CARET (Cambridge University)
- West-Midlands Science Learning Centre (Keele University)
- Boston College
- Northampton College

The West-Midlands Science Learning Centre is known for its strong links with FEIs, and further FEIs in the West Midlands will be involved during the deployment stage (year two of the project).

The project will be executed in collaboration with

- Learning and Skills Web (BECTA)
- The National Science Learning Centre
- The Darwin Centre Live (Natural History Museum, London)
- Teacher's TV
- Motivate (Millennium Mathematics Project, Queen's Anniversary Prize for Higher and Further Education 2006)
- Institute of Continuing Education (Cambridge University)

The project director and the project manager will be provided by the University of Cambridge. Each of the HE and FE partners will supply a local project leader. These key project members will meet regularly, sometimes face-to-face but at least monthly by conference call to agree goals, content and dates of individual project tasks and to take corrective action when required.

A succinct monthly project progress report will be distributed among team members and shared with JISC management.

### 3.8 Analysis of Risks

<b>Risk</b>	<b>Impact</b>	<b>Probability</b>	<b>Mitigation</b>
Too few participating	High	Low to medium	Access additional FEIs

<b>Risk</b>	<b>Impact</b>	<b>Probability</b>	<b>Mitigation</b>
learners			
Video formats becoming obsolete, and replaced by others	High	Medium	All materials stored in full quality formats, allowing generation of new formats as required. Chapter markers stored in xml external to video.
User interface not flexible, or materials not easily accessible	High	Low	Employment of agile development methodology together with teachers and learners.
Delay	Medium	Medium	Good governance of project, frequent web-based meeting, clear arrangements of timescales
Shift in use of archive technologies	High	Low	Use of open standards ensure migration
New portals emerge, replacing existing portals	Very low	Medium to High	Inform new portal development to support open standards.

### **3.9 Dissemination**

One of the most important routes for dissemination is through the contacts with FEIs themselves, and their networks. The project leads to a change in behaviour with regard to the e-learning resources provided. This will be reinforced through workshops at the Science Learning Centres. Regionally, we will primarily work in the Midlands; the West Midlands Centre is a partner in the project, and the Science Learning Centre East Midlands, as part of their remit to provide innovative professional development for science teachers in the East Midlands region, is interested in exploring the outcomes of this work in order to enhance future continual professional development for teachers.

National dissemination will be through the portal partners in this project. Through those portals, our materials will be immediately available, leading to large-scale uptake. Global dissemination will be through injection of repository information into the most used search engines. Work will also be disseminated through the usual channels, such as conferences, trade-shows for teachers, and research papers.

Key deliverables will be made available through usual JISC channels and we shall be willing to contribute to general JISC publicity.

### **3.10 Evaluation**

Evaluation will be based on a combination of teacher interview, student survey, automatic web-site data collection, and comparison of observed behaviour with predicted behaviour.

We shall examine how learners engage with the ScienceLive repository, whether they observe or depart from the processes captured in our use cases, and how this engagement contributes to their learning. We shall enumerate the advantages and disadvantages of e-learning using HE video at an FE level. Within the resources available to the project, we shall seek to deliver an understanding of how the use of ScienceLive has an impact on learners' career progression, for instance whether or not to take HE courses, as well as choice of subject. We shall build a case for facilities to support progression and work place learning. We shall provide a clear roadmap detailing best practice for repositories, indicating which elements are most important for lifelong learning.

### **3.11 Sustainability**

#### 3.11.1 Sustaining the ScienceLive Repository

As a joint pre-existing project, ScienceLive will be sustained by partner institutions. Partner institutions maintain ScienceLive through institutional collections, and will continue to do so. The grant seeks to transform the way these collections are maintained. It is anticipated that the number of content providers will increase in the near future, and we anticipate that the ScienceLive network supported by this grant will be an initiative of national significance. By involving partners across several different organisations, we are bringing together an archive that will be of significant use in supporting lifelong learners.

Creating video materials for e-learning is costly, and therefore any collection created with time-limited funding will either go out of date or will need to look for other sources of revenue after the original funding ceases. We therefore follow a different approach: we draw on existing resources, which are continually augmented independently of this proposal.

#### 3.11.2 Sustaining the User Group

Through the proposal, information about the archive becomes available to LSWEB, the National Science Learning Centre, and a range of other portal providers. Therefore the materials will be discoverable from a wide range of portals suitable for teachers and learners in FE. Because the connection with those archives is through the machine interface, listings of ScienceLive materials on those portals will remain up-to-date.

#### 3.11.3 Sustaining Established Practice

Changes made in FE teaching practice, if proven to be as effective as we anticipate, will be embedded in the normal processes of those institutions. Use of these methods will be extended across their organizations as part of their normal business.

### **3.12 Intellectual Property**

All materials and reports developed entirely as part of the project (except for financial reports) will be publicly available through usual JISC channels (learning assets will be stored in the JORUM repository). All materials produced by partners outside the project will remain the property of the project partners, individually and collectively. However, any such materials made available through the ScienceLive repository will, as a minimum, be available to all UK HEIs and FEIs through a Creative Archive style of agreement.

## 4 Budget (IV.)

	FTE	Year 1	Year 2	Total	Requested funding	Inst. Contrib.
<b>Management</b>						
Project Director	20 days					
Salary inc oncosts		£2,330	£2,482	£4,812		
FEC related cost		£1,981	£1,981	£3,962		
Full Economic Cost		£4,311	£4,463	£8,774		£8,774
Project Manager (SRA)	44days					
Salary inc oncosts		£9,378	£10,208	£19,586	£19,586	
FEC related cost		£8,716	£8,716	£17,432		£17,432
Full Economic Cost		£18,094	£18,924	£37,018		
Project Research Assistant	86 days					
Salary inc oncosts		£6,544	£7,138	£13,682	£13,682	
FEC related cost		£9,310	£9,310	£18,620		£18,620
Full Economic Cost		£15,854	£16,448	£32,302		
FE coordination (T)	0.5FTE					
Salary inc oncosts		£0	£17,620	£17,620	£17,620	
FEC related cost		£0	£21,790	£21,790		£21,790
Full Economic Cost		£0	£39,410	£39,410		
<b>Deliverable: Repository, Web development, flexible</b>						
Developer (T)	0.5FTE					
Salary inc oncosts		£18,200	£19,675	£37,875	£37,875	
FEC related cost		£21,820	£21,820	£43,640		£43,640
Full Economic Cost		£40,020	£41,495	£81,515		
<b>Deliverable: Metadata + course notes</b>						
Course materials and Video annotations	100 days					
Salary inc oncosts		£7,576	£8,306	£15,882	£15,882	
FEC related cost		£9,905	£9,905	£19,810		£19,810
Full Economic Cost		£17,481	£18,211	£35,692		
<b>Evaluation</b>						
Evaluation (RA)	26 days					
Salary inc oncosts		£1,970	£2,160	£4,130	£4,130	
FEC related cost		£2,575	£2,575	£5,150		£5,150
Full Economic Cost		£4,545	£4,735	£9,280		
<b>Equipment</b>						
	Items	Cost per item				
Portable video players	25	200		£5,000	£5,000	
Computers + Software	4	2000		£8,000	£8,000	
Storage (Lacie Big Disk 2TB)	1	1500		£1,500	£1,500	
Video streaming, video software				£7,500	£7,500	
<b>FE Institutions</b>						
FE Institution Support (Boston, Northampton)				£20,000	£20,000	
FE Institutions through West Midlands (3 FEIs)				£4,500	£4,500	
<b>Additional materials for ScienceLive</b>						
MMP, BAFOS06, SOS2				£30,000	£30,000	
<b>Workshops run for FE teachers</b>						
Teacher Workshops	6			£7,800	£7,800	
Long workshops	3			£2,925	£2,925	
<b>Conference Attendance for Dissemination</b>						
Conferences	2			£4,000	£4,000	
<b>Total project cost</b>				£335,216		
<b>Funding request from JISC</b>					£200,000	
<b>Institutional Contribution</b>						£135,216

## 5 Key personnel (V.)

**Rob Alton (project director):** Rob Alton is CARET's head of content production. He has a 20-year track record in successfully designing and managing circa 100 e-learning projects for a wide range of clients in sectors including higher education, schools, television, corporate and museums. His productions have won 25 awards including BIMA, EMMA, IVCA, Royal Television Society and US EDDIES. Before joining Caret, Robert held executive producer positions at News Corporation and Anglia Television. He is a joint local academic coordinator for the RLO-CETL and has produced reusable learning objects in mathematics, interdisciplinary learning and statistics.

**Bjoern Hassler (project manager):** Bjoern is the head of video studio at CARET. Bjoern has got a strong background in both science and video production. He founded and has been the chairman of Cambridge University Science Productions for the past five years, working on the public engagement in science, as well as aspiration raising, through print, radio, and video. He has conducted work in the area diagnostic testing for mathematics on HE entry, and has contributed and chaired educational session at international conferences. He is closely involved with online video strategy for Cambridge University, both in terms of content as well as delivery.

**Christina Whittaker:** Christina is the director of the Science Learning Centre West Midlands. The Science Learning Centre Network support schools in CPD. Christina has got a strong background in promoting effective teacher networks and supporting resource development for high impact in the classroom. She previously worked as a local authority science adviser linking with best practice at all education key stages. Empathy for teachers is rooted in her own teaching experience of 12 years in a range of schools Christina has trained as an Ofsted inspector for schools and uses evaluation techniques to judge quality in learning.

**Charles Phillips:** Charles is the ICT Learning Technology Facilitator at the Science Learning Centre, Keele University. Good communication to ICT users at all levels of understanding and sharing of acquired knowledge. Creativity and attention to detail in design and quality assurance of marketing materials. Knowledge to conceive and produce ICT solutions to administrative issues within the centre. Adaptability to support the day-to-day running of the centre as required.

**Darren Tysoe:** Darren is assistant director for curriculum ILT at Northampton College, and responsible for cross-college strategies relating to learning technology at a senior/middle management level. He is also a consultant and trainer for IT, IT Key Skills, Learning and Skills Development Agency. He delivers IT Key Skills training to staff at local and national events. Darren is a member of the JISC Learning and Teaching Committee, and E-Learning and Pedagogy Committee. He also chairs NILTAs Learning and Teaching Committee.

**Brian Lambourne:** Brian is currently head of Boston College's Information Learning Technology team, and has been involved in the wider e-learning community since 1999. He has had 10 years teaching experience at HE/FE levels and has produced case studies for the Resource Discovery Network as part of their project to repurpose HE resources for FE. He has authored content modules for the Centre for Excellence in Leadership (CEL). Brian has delivered workshops for the LSDA and other organisations. He is currently working on a Q project with the LSDA. Brian has formal qualifications in online teaching and holds a BSc (1st) in the Psychology of Human Communication in which he focussed on pedagogical practices.

**Raymond Chan:** Raymond is a Computer Science graduate with five years experience of Software Development. He has worked primarily on web applications, including database-driven applications, and has extensive skills in relevant technologies. His work includes work on an archive of Educational Evaluation source material to facilitate teaching, using Fedora digital repository as the underlying data storage. The aim of this project is primarily facilitating re-use of source material in teaching, editorially picked from all the available material.



**Science**  
LEARNING CENTRES

Centre for Applied Research in Educational Technologies,  
Cambridge University,  
16 Mill Lane, 1st Floor  
CB2 1SB, UK

19 June 2006

Dear Bjoern Hassler

**RE: Science Live: Video repository to e-learning resources**

The Science Learning Centre National network has a remit to provide innovative continuing professional development for staff associated with the teaching of science in schools and colleges. The West Midlands Science Learning Centre has effective links and relationships with FE institutions and hosts regular network meetings to facilitate the sharing and development of good practice.

Good resource supply has the potential to improve the learning experience of students particularly when enabled in a flexible and accessible interface. Teacher involvement in evaluation of such a resource will put the professional at the centre of personal CPD and bring further sustainability to the project through the creation of a group of lead practitioners able to promote the outcomes beyond the lifetime of the project.

The Science Learning Centre West Midlands supports the science live proposals and will seek to take an active role in dissemination and evaluation to both the FE sector as stated in the paper but also to the 11-19 schools, as relevant, during related contemporary science secondary training programmes.

Yours sincerely

 Christina Whittaker  
Director

19 June 2006

Ref: PMcP/AW

**A proposal for the JISC Capital Programme, e-learning call**

***RE : ScienceLive: Video repository to e-learning resource***

We would like to express interest in this well constructed and very timely project and we hope to be able to support it in all its aims and aspirations. At Boston College we are committed to building on our links with the Higher Education sector and to embedding the principles and core technologies associated with e-learning (Strategic Plan 2006-7. "Maximising the potential of Information Learning Technology").

We expect that this project has the potential to move us forward in embedding the use of video technologies into curriculum delivery, and will prove a constructive and interesting experience for participating staff members. The approach adopted and the intended deliverables are also consistent with projects that have been recently conducted at Boston College. In particular trialling and evaluating Click View software which is a highly customisable digital video library system and using Teachers TV as a valuable resource in teacher training and Continuous Professional Development.

In taking this project further it is envisaged that the creation, deployment and evaluation of a video repository will provide content driven incentives for the development of integrating learning technologies into relevant subject areas within the Further Education curriculum.

It is envisaged that the project this letter supports will help further this aim in a material and constructive way.



Sue Daley  
Principal  
Boston College

**Professor Richard Taylor, MA, PhD**  
*Director of Continuing Education and Lifelong Learning*

Dr Lynne Harrison  
*Associate Director: eLearning & Tutor, Natural Sciences*



**UNIVERSITY OF  
CAMBRIDGE**

**Institute of Continuing Education**

Tuesday, 20 June 2006

Re: Science Live: Video repository to e-learning resource

The Institute of Continuing Education at the University of Cambridge is keen to collaborate in the ScienceLive:video repository to e-learning resource project.

The Institute offers the widest range of science courses in continuing education in the UK and we would incorporate the video materials both into our online science courses and as supporting material for our face to face courses. This will be implemented via our new eLearning web site ([www.e-cont-ed.cam.ac.uk](http://www.e-cont-ed.cam.ac.uk)) currently under development to be launched in September 2006. We will also provide access to informal learners via information distributed to our 12-14,000 regional, national and international students who come from all walks of life and age from 18 to 80+. Thus we can provide access to a wide ranging audience of 'lifelong learners' engaged in both formal part-time and informal learning who will, by their use of and interaction with the video material facilitate the development of a truly useful and user friendly anytime/anywhere repository.

A handwritten signature in black ink that reads "Lynne Harrison". The signature is written in a cursive style with a large, sweeping underline.

Dr Lynne Harrison  
Associate Director: eLearning  
Tutor, Natural Sciences

Dr Lynne Harrison  
Madingley Hall  
Madingley  
Cambridge CB3 8AQ

Telephone: 01954 280255  
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E-mail: [flh21@cam.ac.uk](mailto:flh21@cam.ac.uk)

June 20<sup>th</sup>, 2006

Lesley Hawkins  
JISC Executive  
Northavon House  
Coldharbour Lane  
Bristol  
BS16 1QD

Dear Lesley


**JISC CIRCULAR 3/06 CAPITAL PROGRAMME  
“SCIENCE-LIVE VIDEO REPOSITORY TO E-LEARNING RESOURCE”**

I am delighted to fully support this bid which is being led by Cambridge University. The College has a growing reputation for carrying out and participating in successful e-learning projects.

The use of innovative video to enrich science teaching and learning will be a superb resource for our science learners. The focus on personalisation that this bid clearly demonstrates dovetails well with our strategic objectives.

We are looking forward to working with Cambridge university and the other FE partners with this exciting project.

Yours sincerely



Darren Tysoe  
Assistant Director, Curriculum ILT

Dr Kate Pretty  
Pro-Vice-Chancellor

Ms Lesley Hawkins  
JISC Executive  
c/o HEFCE  
28th Floor Centre Point  
103 New Oxford Street  
London  
WC1A 1DD



UNIVERSITY OF  
CAMBRIDGE

Vice-Chancellor's Office

21 June 2006

Dear Ms Hawkins

**JISC Circular 03/06: JISC Capital Programme e-Learning Programme**

The University of Cambridge makes a considerable contribution to lifelong learning in the community and has the oldest Institute of Continuing Education in the country. Moreover, through its public programmes colleges and departments across the University offer public lectures and open-days, concerts and exhibitions, in addition to the much admired programme of events to mark National Science Week.

We welcome the opportunity to work with partners in the ScienceLive initiative to support life-long learners of all ages, wherever they may be, and however they may wish to gain access to learning.

This bid has the full support of the University and our commitment to ensure the success of the project if funded.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Kate Pretty'.

Dr Kate Pretty

The Old Schools  
Trinity Lane  
Cambridge  
CB2 1TN  
UK

Telephone: +44 (0)1223 339664  
Fax: +44 (0)1223 765693  
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Dr Bjoern Hassler  
CARET Video Studio  
Cambridge University  
16 Mill Lane,  
Cambridge CB2 1SB

7<sup>th</sup> June 2006

Dear Bjoern,

Further to your conversations with Stuart Jones and Gill Northwood, I am pleased that you are keen to be involved with Learning and Skills Web.

The growing ScienceLive site and related resources available through the Caret site are likely to be of immediate value to a wide spectrum of learners within the Learning and Skills sector. In addition your plans to widen the scope of resources by partnership with other significant video resource providers will further enhance the value of your service to Learning and Skills Web users.

I suggest that our Technical Manager, Adrian Hall, meets with you to discuss the most effective way for Learning and Skills Web to interface and search the ScienceLive/ Caret sites.

The outcome from this review will be an agreed action plan for the next stages of partnership taking account of any development work that needs to be undertaken. Adrian will contact you in the near future if this is acceptable to you.

I hope this letter represents a useful first step towards a fruitful partnership.

If at any time you have any queries regarding progress please do not hesitate to contact myself or Gill Northwood either by e-mail or phone.

[graham.bayliss@becta.org.uk](mailto:graham.bayliss@becta.org.uk)  
07919882167  
[gillian.northwood@becta.org.uk](mailto:gillian.northwood@becta.org.uk)  
07801 612455.

I look forward to working with you.

Yours sincerely,



Graham Bayliss

Head of Learning and Skills Web

**From:** Paul Browning <p.browning@slcs.ac.uk>  
**Subject:** JISC e-learning ScienceLive proposal - letter of support  
**Date:** 20 June 2006 9:29:03 BDT  
**To:** Bjoern Hassler <B.Hassler@damp.cam.ac.uk>  
**Cc:** John Holman <j.holman@slcs.ac.uk>

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Dear Bjoern,

Thanks for sharing various drafts of your proposal with me. It is pleasing to see that you hope to partner also with the Science Learning Centres for East Midlands and West Midlands.

John Holman, Director of the National Science Learning Centre, asked me to respond on behalf of the NSLC.

We are keen to support projects that will provide a vehicle for developing our Resource Bank that will become central to the Science Learning Centres' portal.

Any project that seeks to address the fragmentation in science resources across the various sectors is worthy of support in its own right.

We are particularly enthusiastic about your intentions to use lightweight approaches such as RSS to facilitate cross-pointing between different repositories.

We are also re-assured by your embrace of the Creative Commons and Creative Archive approaches - it is vital that teachers can re-purpose materials if they wish.

We wish you success with the ScienceLive proposal.

Yours sincerely,

Paul

Paul Browning  
ICT & Resources Director  
National Science Learning Centre

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E-mail: p.browning@slcs.ac.uk Web: <http://www.slcs.ac.uk/national>  
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