

Cover Sheet for Proposals to Circular (All sections must be completed)		JISC Capital Programme	
Name of Capital Programme: Users and Innovation			
Next Generation Technologies and Practice Phase 2 Please tick ONE BOX ONLY, as appropriate			
<input checked="" type="checkbox"/> b) Large-scale institutional demonstrators			
Name of Lead Institution: University of Southampton			
Name of Partners:			
Name of Proposed Project: Multimedia Annotation and Community Folksonomy Building (MACFOB)			
Full Contact Details for Primary Contact:			
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Length of Project: 15 months			
Project Start Date: 1 January 2008		Project End Date: 31 March 2009	
Total Funding Requested from JISC: £200,000 (40.2% of Total Project Cost)			
Funding Broken Down over Financial Years (Apr-Mar)			
Apr07 – Mar08		Apr08 – Mar09	
£44,897		£ 155,103	
Total Institutional Contribution: £297,529 (59.8% of Total Project Cost)			
Outline Project Description			
This project's outcomes will meet the identified user need of ... <i>making multimedia web resources (e.g. podcasts) easier to access, search, manage, and exploit for learners, teachers and other users</i> through developing and deploying technologies that ... <i>support the creation of synchronised notes, bookmarks, tags, images, links and text captions</i>			
I have looked at the example FOI form at Appendix A and included an FOI form in the attached bid (Tick Box)			YES <input checked="" type="checkbox"/>
I have read the Circular & associated Terms & Conditions of Grant at Appendix B (Tick Box)			YES <input checked="" type="checkbox"/>

FOI Withheld Information Form

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

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

Introduction

- MACFOB's outcomes will meet the important and pervasive user need of **making multimedia web resources (e.g. podcasts) easier to access, search, manage, and exploit for learners, teachers and other users** through developing and deploying technologies that **support the creation of synchronised notes, bookmarks, tags, links, images and text captions**. Figures 1 & 2 schematically show the system to be developed and deployed while sections 2, 3 and 4 outline the appropriateness and fit to programme objectives and overall value to the JISC community.

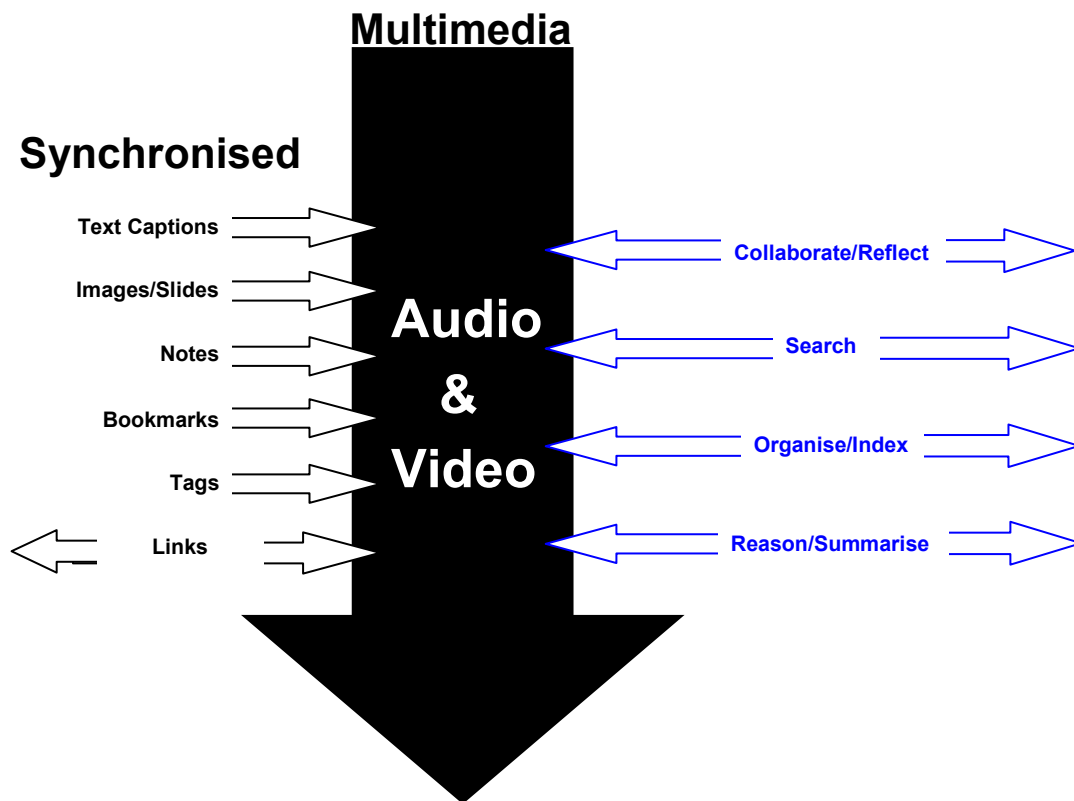


Figure 1. MACFOB system overview

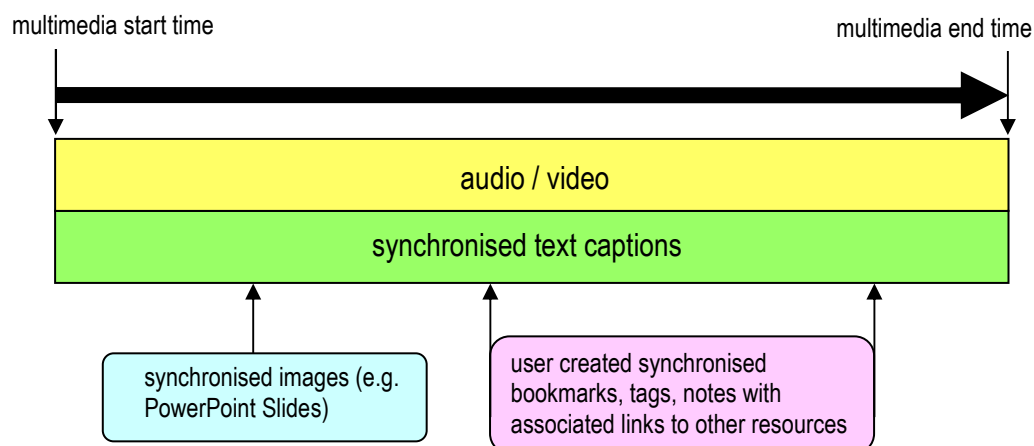


Figure 2. Time-based view of MACFOB system

2. Multimedia has become technically easier to create (e.g. recording lectures) but while users can easily bookmark, search, link to, or tag¹ (i.e. classify) the *WHOLE* of a podcast or video² recording available on the web they cannot easily find, or associate their notes or resources with, *PART* of that recording. As an analogy, users would clearly find a text book difficult to use if it had no contents page, index or page numbers. Therefore the growing amount of knowledge available in multimedia format has yet to achieve the level of interconnection and manipulation achieved for text documents via the World Wide Web and so realize the exciting opportunities for learning that can occur in 'Web 2.0' and 'social software' environments.
3. The provision of synchronized text captions (subtitles) and images with audio and video enables all their communication qualities and strengths to be available as appropriate for different contexts, content, tasks, learning styles, learning preferences and learning differences. Text can reduce the memory demands of spoken language; speech can better express subtle emotions; while images can communicate moods, relationships and complex information holistically. Deaf learners and non-native speakers may also be particularly disadvantaged if multimedia involving speech is not captioned.
4. The new generation of Web applications emphasise social interaction and user participation through social networks, collaborative content creation, and freeform metadata creation in the form of tagging which is currently used to aid search and to support recommendations. The usefulness of tags is limited by their meaning not being understood by the technology so that, for example, the relationship between synonyms is not recognised. The creation of structured tagging through schemas or ontologies involves much human time and effort but allows for more powerful manipulation of resources than unstructured tagging. It is possible to examine the use of unstructured tags and extrapolate a schema, called a Folksonomy, which reflects the evolving view of the community and supports advanced search and personalisation. The Folksonomy approach allows a community to reflect on their activities and develop tag richness to increase the utility and reusability of resources. Folksonomy construction joins the advantage of the Web 2.0 model with the utility of more traditional approaches³. This is an important consideration for the e-Framework (and its semantic wiki), which must strike a balance between freeform tagging and structured annotation, and supports the agile and evolutionary development of information models.

Engagement with the Community (UIDM stage 1 & stage 2 part 1)

5. User needs requirements for MACFOB have been established through user studies which have shown how teachers and learners benefit from making annotations to help search and manipulate recordings of lectures or classes to find and make use of information. Consultations within the University, including with the 30 members of the University's podcasting user group, have confirmed the user needs requirements for both teaching and administration, interest in involvement in the project and synergy with the university's road map to support and empower learners in their studies.⁴ Discussions with many members of the U&I Emerge community of practice have also supported these identified needs and the members are keen to be able to use, and provide feedback on, the project's annotation software. Dr Wald in collaboration with the international Liberated Learning Consortium⁵ has conducted many qualitative and quantitative user studies involving questionnaires, interviews, focus groups, observations and logging the use of online synchronised multimedia with learners and staff that have established the importance of text captions for searching multimedia transcripts⁶ (see *technical annex Figure 3 for the screen display and URL of a working demonstration of searching captioned multimedia transcripts*). User needs

¹ <http://del.icio.us/>

² <http://www.youtube.com/>

³ Al-Khalifa, H. S. and Davis, H. C. (2006) Harnessing the Wisdom of Crowds: How to Semantically Annotate Web Resources using Folksonomies. In Proceedings of IADIS Web Applications and Research 2006 (WAR2006)

⁴ <http://www.soton.ac.uk/sais/virtualservices/SSD%20virtual%20services%20vision.doc>

⁵ <http://www.liberatedlearning.com/>

⁶ K. Bain, J. Hines, P. Lingras, Q. Yumei. (2007) "Using Speech Recognition and Intelligent Search Tools to Enhance Information Accessibility" in Proceedings of HCI International 2007, In Lecture Notes in Computer Science series (LNCS)

analyses and evaluations have also been conducted with learners at the University of Southampton using both low and high fidelity prototype technologies and interfaces and included reflection by learners on how they learn using recorded multimedia and how synchronized notes and tags could assist them⁷. These studies confirmed the importance of captions for searching the recordings and reading the transcripts and the value of also being able to personally annotate the recordings (e.g. bookmarks, notes and tags) and search these annotations. Other research also supports these identified user needs (e.g. Filochat⁸, Dynamite⁹, NoteLook¹⁰, eClass¹¹, Talkshow¹²).

6. User needs analysis has identified many benefits of annotating multimedia recordings in the ways proposed in this project. MACFOB will, for example:

Enable learners ...

- i. to search text transcripts for specific topics and then replay recordings from that point
- ii. to read captions rather than listen to recorded speech to support learning style preference, deafness, or English as a second language
- iii. who find the more colloquial style of transcribed text easier to follow than an academic written style to use the transcript of lectures to support their understanding of text books and academic articles
- iv. to insert a bookmark at a particular point in a recording so as to be able to continue later from where they left off
- v. to link to sections of recordings from other resources (e.g. documents, web pages etc.) or share these sections with others
- vi. to tag and highlight sections of recordings/transcripts they don't understand fully so they can revisit them later for clarification
- vii. to annotate recordings with notes and URLs of related resources (e.g. documents, websites etc.) at specific places in a recording to clarify issues and support revision
- viii. to tag recordings using their own terms as a personal index. A community folksonomy 'index' can be created from everyone's tags to help provide a shared understanding and a more detailed and complete index.

Enable teachers/lecturers ...

- ix. to index their recordings using syllabus topic tags
- x. to provide synchronized slides and text captions to accompany podcasts
- xi. to identify which topics need further clarification from the pattern of learners' 'not understood' tags
- xii. to provide feedback on learner-created recordings of presentations (e.g. 'good use of voice', 'good use of audio visual material')
- xiii. to ask learners to annotate recordings of their group meetings using unstructured or structured tags to provide evidence of their contributions as part of the module assessment
- xiv. to analyse unstructured tags learners use (folksonomy) to help create structured tags (ontology) for indexing future recordings
- xv. to tag recordings with URLs of related resources (e.g. documents, websites etc.)
- xvi. to link to and use sections of existing multimedia without having to edit the recording

Enable administrative and support staff ...

- xvii. to caption and add images to information or training recordings and tag with indexes and also URLs of related resources.

⁷ Clucas-Martin, V. (2006) A usability study investigating whether ViaScribe's synchronised multimedia captioned files can enhance learning. Project Report, University of Southampton.

⁸ Whittaker, S., Hyland, P., Wiley, M. (1994). Filochat handwritten notes provide access to recorded conversations, *Proceedings of CHI '94*, 271-277.

⁹ Wilcox, L., Schilit, B., Sawhney, N. (1997). Dynamite: A Dynamically Organized Ink and Audio Notebook, *Proc. of CHI '97*, 186-193

¹⁰ Chiu, P., Kapuskar, A., Reitmeief, S., Wilcox, L. (1999). NoteLook: taking notes in meetings with digital video and ink, *Proceedings of the seventh ACM international conference on Multimedia (Part 1)*, 149 - 158.

¹¹ Brotherton, J. A., Abowd, G. D. (2004) Lessons Learned From eClass: Assessing Automated Capture and Access in the Classroom, *ACM Transactions on Computer-Human Interaction*, Vol. 11, No. 2.

¹² http://www.alt.ac.uk/altc2007/timetable/abstract.php?abstract_id=1116

7. The importance of MACFOB's identified user need of making multimedia accessible and searchable through the creation of synchronised transcripts and captions is supported by Google's recent encouragement for people to caption their multimedia before uploading it to Google¹³ and their addition of the facility to manually type a time at the end of a URL to search and play the video starting from that position. Project Readon¹⁴ displays manually created non-searchable captions in a standalone caption player while the audio or video plays in its original window. Manual captioning is time consuming and costly but speech recognition has been demonstrated to provide a cost-effective way of automatically creating accessible text captions and transcripts synchronised with audio and video and so allows audio visual material to be manipulated through searching and browsing the text. The appearance on the web of Everyzing¹⁵ which uses speech recognition to create a searchable transcript from podcasts or multimedia recordings provides further evidence for the importance of the project's identified user need and the value of this approach. However Everyzing does not display fully synchronised captions and so does not meet the identified user accessibility needs.
8. Dr Wald has collaborated with IBM and the international Liberated Learning Consortium since 1999 to investigate how speech recognition captioning can enhance learning and to develop ViaScribe¹⁶ which uses speech recognition to create synchronized searchable transcripts, slides and captions from multimedia recordings of live or recorded speech or video. Screen captures of ViaScribe and an associated user configurable multimedia display of text captions synchronized with audio and Powerpoint slides are shown in Figures 4 and 5 in the technical annex. A multimedia recording created using ViaScribe and explaining and demonstrating of some of the project's ideas can be accessed on the web¹⁷ and has been shown to, and discussed with, staff and learners at Southampton and the JISC U&I 'Emerge' community of practice. Features demonstrated include:
- The text can be highlighted and scroll automatically in time with the speech
 - The controls can move backwards or forwards through the presentation or pause it
 - The browser 'find' facility can search for text and play the multimedia from that position
 - Selecting a slide thumbnail will move the presentation to that position
 - Selecting a slide in the text frame will open it full size in a separate window
 - The frames and slide thumbnails can be resized
- Learners and teachers have found teaching and learning improved using this technology¹⁸. Portable wireless systems can facilitate personalisation of the display while live manual correction can be used when required to reduce speech recognition errors, especially if there are multiple speakers¹⁹ (see *technical annex Figure 6*).

UIDM Stage 2 Part 2: Buy or Build Decisions

9. Investigations of existing annotation software (including trials and discussions with developers and users) have provided valuable information in the design of the proposed MACFOB system and interface and shown the widespread recognition of the importance of the project's identified user need of supporting the creation of annotations e.g.:
- The Memetic²⁰ project's overall aim (involving Southampton and funded by JISC's Virtual Research Environments programme) was to extend the functionality of the next generation AccessGrid collaboration environment with advanced meeting support and

¹³ <http://video.google.com/support/bin/answer.py?hl=en&answer=26577>

¹⁴ <http://projectreadon.com>

¹⁵ <http://www.everyzing.com/>

¹⁶ http://www-306.ibm.com/able/solution_offerings/ViaScribe.html

¹⁷ www.soton.ac.uk/~mw3/MACFOB.html

¹⁸ Leitch, D., MacMillan, T. (2003). Liberated Learning Initiative Innovative Technology and Inclusion: Current Issues and Future Directions for Liberated Learning Research. Saint Mary's University, Nova Scotia.

<http://www.liberatedlearning.com/>

¹⁹ Wald, M. and Bain, K. (2007) Enhancing the Usability of Real-Time Speech Recognition Captioning through Personalised Displays and Real-Time Multiple Speaker Editing and Annotation. In *Proceedings of HCI International 2007: 12th International Conference on Human-Computer Interaction*, Beijing.

²⁰ <http://www.memetic-vre.net/>

information management annotation tools that were developed in CoAKTinG²¹ which drew on the extensive multimedia retrieval and open hypermedia knowledge and experience gained through Southampton's earlier HyStream²², Microcosm²³, DLS, COHSE and Auld Linky applications. A prototype dedicated annotation system is being investigated at Southampton for healthcare skills-based learning.

- JISC and NSCF digital libraries programme funded the development of Project Pad²⁴ to assist learners in interacting with digital multimedia archive recordings.
- Transana²⁵ software for professional researchers analyzes multimedia data and the NXT²⁶ set of libraries and tools was developed for the manipulation, query and analysis of multimedia language data.
- OneNote²⁷ and Tegrity²⁸ enable learners to take notes that are synchronized with recordings so that selecting a note replays the recording from that point.
- Proprietary non-standard formats^{29 30 31} requiring proprietary media players can be used to create enhanced podcasts by embedding markers in a multimedia file to jump to predetermined spots in a presentation.
- Mojiti³², PLYmedia³³, Viddler³⁴ and Asterpix³⁵ are creative video annotation tools but don't support image/slide annotation or searching for, or linking to, text or sections within the video or allow users access to the proprietary annotation format or files.

10. No existing technology satisfies all the identified user needs and it is therefore necessary to develop MACFOB software that:

- Works with web multimedia and stores annotations separately in XML format;
- Synchronises captions, images, tags, links, notes and bookmarks;
- Enables users to add, and search for, annotations quickly and easily;
- Supports private or shared annotations;
- Is accessible.

A prototype annotation system that meets these requirements has been under development at Southampton to add to the synchronised multimedia captions, images, and slides demonstrated using ViaScribe, the facility for users to also create tags and notes and bookmarks and links³⁶. The interfacing of other speech recognition engines (e.g. Dragon, Microsoft) with the system is also under investigation. The system design would allow the future incorporation of other specific types of annotation such as audio, video, animations, etc. However these were not identified as a current user need and can also be achieved with the prototype system through linking to external files. The system has built on the user interface knowledge gained in developing a real-time editing system³⁷ that enables an operator to select and correct errors in the speech recognition captions as they are displayed. MACFOB will build on this prototype and the experience with ViaScribe to allow users to search, browse and add synchronised

²¹ <http://www.aktors.org/coakting/>

²² <http://www.iam.ecs.soton.ac.uk/projects/hystream/>

²³ <http://www.mmrq.ecs.soton.ac.uk/projects/microcosm.html>

²⁴ http://www.jisc.ac.uk/whatwedo/programmes/programme_dlitc/project_spoken_word.aspx

²⁵ <http://www.transana.org/>

²⁶ <http://www.ltg.ed.ac.uk/NITE/>

²⁷ <http://office.microsoft.com/en-us/onenote/HA101212541033.aspx>

²⁸ <http://www.tegrity.com/>

²⁹ <http://docs.info.apple.com/article.html?artnum=301880>

³⁰ <http://www.microsoft.com/windows/windowsmedia/forpros/encoder/features.aspx>

³¹ <http://www.highcriteria.com/products.htm>

³² <http://mojiti.com/>

³³ <http://www.plymedia.com/index.asp>

³⁴ <http://www.viddler.com/>

³⁵ <http://www.asterpix.com/>

³⁶ Wald, M. (2007) A Research Agenda for Transforming Pedagogy and Enhancing Inclusive Learning through Synchronised Multimedia Captioned Using Speech Recognition. *Proceedings of ED-MEDIA 2007: World Conference on Educational Multimedia, Hypermedia & Telecommunications*.

³⁷ Wald, M. (2006) Creating Accessible Educational Multimedia through Editing Automatic Speech Recognition Captioning in Real Time. *International Journal of Interactive Technology and Smart Education: Smarter Use of Technology in Education* 3(2) pp. 131-142.

annotations (notes, tags, bookmarks, images/slides, links, and captions) to recordings and any existing user annotations. A possible user-customisable display layout is shown in Figure 7 of the technical annex.

11. Stakeholder Analysis

Stakeholder	Stake in the project	Potential impact on Project	What does the Project expect the Stakeholder to provide?	Perceived attitudes and/or risks	Stakeholder Management Strategy	Responsibility
Lecturers & Information providers	enhance their teaching and information provision	High	recorded and annotated material and involvement in design and evaluation	number of staff recording multimedia materials	involvement with project steering Committee	Project Manager
Learners	enhance their learning	High	annotate recordings and involvement in design and evaluation	number of learners interested in project	involvement with project steering committee	Project Manager and Academic staff
technology support staff	support lecturers and learners	High	support to lecturers and learners	integration with institutional systems	Involvement with project steering committee	Project Manager
JISC & U&I community	benefit from outputs	Low	use technology if interested	Interest varies	keep informed throughout project	Principal Investigator
Senior Management	e-learning strategy	High	Encouragement and support	interest and support	involvement with project steering committee	Principal Investigator

Workpackages

12. **Workpackage 1:** Implementation team recruitment

Objective: Recruitment of staff capable of technological development work (programming, HCI/usability etc.), deployment, support, evaluations and project management

Activity: Advertise for and interview staff

Output: The JISC funding will enable the Steering Committee to recruit a Project Implementation Team of 3 people, the most senior of which will act as Project Manager supervising the day to day technical output, while managing the internal liaison and advocacy and external dissemination and reporting. Two of the team will be responsible for technical development and one will be responsible for lab and field usability and evaluation studies and detailed liaison with users.

13. **Workpackage 2:** Ethics approval

Objective: Obtain Ethics Committee approval of use of staff and learners in project

Activity: Write and submit application to ethics committee

Output: Ethics Committee approval

14. **Workpackage 3:** User recruitment

Objective: Participation of staff and learners

Activity: Advertise for and communicate with staff and learners

Output: Staff and learner participation. Users from a wide range of Schools and Support Services at the University of Southampton have been consulted and have agreed to participate (e.g. Electronics and Computer Sciences, Management, Mathematics, Nursing and Midwifery, Oceanography and Earth Sciences, Information Systems Services, Learning and Teaching Enhancement Unit, Library)

15. **Workpackage 4:** Working with and reporting to JISC

Objective: Extensive involvement with JISC & U&I community

Output & activity: Project plan and reports to JISC and at least 20 person days per year in activities that support JISC programme-level work and the U&I community including JISC Joint Programme meeting (July 2008) and JISC e-Framework workshops.

16. **Workpackage 5:** Dissemination

Objective: Gain maximum exposure of the project.

Output & activity: Produce project website (semantic wiki, blogs etc.) extensive involvement with JISC (including semantic wiki) and U&I Community of Practice (including access to demonstrators) and discipline networks through workshops, conferences presentations, mailing lists, published papers and articles. The full text of all published research papers and conference proceedings will be deposited in the ECS Eprints open access repository.

17. **Workpackage 6:** Software Development & Evaluation

Objective: Develop and evaluate multimedia annotation software & documentation

Output:

Phase 1 output will be demonstrator 1 which includes caption and image annotation which allows users to caption manually or use the output from an appropriate speech recognition system.

Phase 2 outputs will be evaluation of demonstrator 1 and development of demonstrator 2 which includes bookmark and note annotation.

Phase 3 outputs will be evaluation of demonstrator 2 and development of demonstrator 3 which includes tag annotation (teachers will initially annotate existing recordings with tags).

Phase 4 outputs will be evaluation of demonstrator 3 (learners will also tag recordings) and development of final version of software.

Phase 5 outputs/deliverables will be:

- Evaluation report of the use and acceptance of the software by staff and learners.
- Examples of use of the software by staff and learners.
- Software and documentation that meets the identified requirements.

Activity:

The software development and evaluation will be iterative involving UIDM stages one, two and three, with five phases/iterations and three demonstrators and a final version at the end of the project. Communication, training and help issues will also be addressed to inform U&I stage four. Requirements/functional specifications will be expressed using UML use cases, scenarios and class diagrams. Analysis and design and development of demonstrators will involve usability studies including iterative evaluation of screen and interaction design with users to finalise software design for deployment for teaching, learning, training and information provision. Demonstrators will be evaluated using quantitative and qualitative evaluations and observations based on deployment by users. Beta testing reports include testing against requirements and acceptance, compatibility, integration, unit and load testing and identifying problems to be addressed, including integration or interoperability issues. Best practice in source code development and management will be followed. Interfacing with other speech recognition engines (e.g. Dragon) will be explored. Demonstrators will be also made available to the U&I Emerge community for evaluation and feedback. A web service interface will be provided for integration with the e-Framework. REST APIs would make much of the functionality available to Web 2.0 style mashups, and allow integration into the e-Framework. The code would also be available for institutions to download if they wished to host their own sites. The code developed by this project will be made available under an appropriate open source agreement (LGPLM or GPL licenses) and may be used within any educational establishment in line with JISC's requirements, as per the terms and conditions of JISC grants. The University will retain IPR on the learning content, the software artefacts, and associated documentation. The application would be hosted on a public site, and would allow any author with an ac.uk email address to contribute resources and annotations.

18. **Workpackage 7:** Continuation (UIDM stage 4)

Objective: Ensure project work is sustained through software being supported by institution and professional training support organizations.

Output: Acceptance by users and a sustainability strategy for the output.

Activity: Enacting User Acceptance and Support Plan (using information from Workpackage 6) and maintaining links between project and others in U&I community and on-going maintenance of website. The success of the project will be measured by sustainable successful delivery of

software and related documentation that makes multimedia web resources (e.g. podcasts) easier to access, search, manage, and exploit for users. Sustainability is ensured by providing access to the code and documentation through LGPLM or GPL licences. Quality factors built into MACFOB will ensure successful Open Source life through achievement of a good OSMM rating and meeting community stated needs. All reports, tools and code from the project will remain on the project server for a minimum period of 3 years following the end of JISC funding and will be archived in the institutional repository and any appropriate JISC repositories.

19. Workpage Schedule

	Year 1				Year 2												sustain
WORKPACKAGES	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M		
1 Staff Recruitment																	
2 Ethics Approval																	
3 User recruitment																	
4 Work with JISC	Project Plan, Reports & 2 days/year contribution to the e-Framework																
5 Dissemination																→	
6 S/W Dev & Eval	phase 1			phase 2			phase 3			phase 4			p'5				
7 Continuation																→	

20. Risk Assessment

Title	Likelihood x Impact = Priority	Action to Prevent/Manage Risk
Recruitment of implementation team and loss of personnel	2 x 4 = 8	ECS is a very large organization with many experienced and qualified staff regularly finishing existing projects and looking for new ones and members of the team have the knowledge, experience and ability to support staff and to take over each other's roles at critical moments if required
Interest of staff and students	2 x 8 = 16	Staff and student interest has been ascertained and will be maintained as the project will support teaching and learning in existing courses
Keeping to planned timetable	2 x 8 = 16	The team are very experienced at successfully completing funded projects to time and have the required technical and managerial expertise and support of the institution and will communicate and meet regularly throughout the project to ensure it runs to plan.

Likelihood scored as Very Low = 1, Low = 2, Medium = 3, High = 4, Very High = 5
 Impact scored as: Very Low = 1, Low = 2, Medium = 4, High = 8, Very High = 16

21. Project Management

Cycle-by-cycle management will be undertaken by the Project Steering Committee, comprising of the project Investigators and the project implementation team and staff and learner representatives meeting at least every three months. The Project Steering Committee will report into the relevant University Committees periodically. Day-to-day and week-to-week management will be undertaken by the Project Manager, working in consultation with and under the strategic direction of the Project Steering Committee. The project will use the JISC guidelines on quality assurance, project management, and open source software development. Quality and project management will include the development of project standards for documents (e.g. requirements specifications, project glossaries; non-functional requirements); version, configuration, and change management; requirements tracking; quality reviews of software, models, and documentation (including design reviews and code walkthroughs); and maintenance of an issues log and tracker.

22. Roles & Experience of the Project Steering Committee

- **Mike Wald** is the Principal Investigator and a Senior Lecturer at the School of Electronics and Computer Science at the University of Southampton. He has led JISC and HEFCE funded projects and advised HEFCE, BECTA, and JISC on technology issues and worked with IBM and the International Liberated Learning consortium on developing and implementing the use of speech recognition to automatically create synchronised captions from live or recorded audio and video. Dr Wald will be aided by the following co-investigators who will also use the technology in their teaching/work :
- **Gary Wills** is technical lead for service oriented architecture and a senior lecturer in computer science. He has been the technical lead on several JISC funded projects in the areas of e-learning, repositories and virtual research environment.
- **David Millard** is technical lead for folksonomies and a lecturer in computer science. His research interests are in knowledge modelling for contextual systems in m-learning and e-learning. He has been technical lead on numerous JISC, EPSRC and EU funded projects.
- **Lester Gilbert** is lead on project evaluation and a lecturer at the School of Electronics and Computer Science with a background in cognitive psychology and learning theory as well as IT. He is the technical manager of the JISC VRE CORE project, and is a co-investigator on the JISC FREMA (assessment reference model) and R2Q2 (QTI services) projects.
- **Hugh Davis** is the University Director of Education responsible for e-learning and leads on institutional sustainability. He has significant experience of directing JISC projects concerned with institutional change, including the DialogPLUS project (DLIC) and mPLAT project (XINSTIT eLearning). He heads the Learning Societies Lab within the School of Electronics and Computer Science and is a member of the JISC Learning and Teaching Committee. He has a particular interest in institutional change.
- **Adam Warren** is the learning technologist at the University's Learning and Teaching Enhancement Unit responsible for podcasting staff development. His responsibilities include providing advice and support for e-learning, delivering professional development about the use of learning technologies and collaborating with Schools on educational projects.
- **Bob Price** is the Education Service Manager for the University's Information System Services. He is responsible for strategic leadership in the development and deployment of systems and services to support the University's Teaching and Learning activities. The scope and involvement is at University level with Education Policy Committee, Academic Quality and Standards Committee and E-learning groups to deliver business objectives through the effective deployment of ICT.
- **Mary Gobbi** is a Senior Lecturer and Award Leader for the Postgraduate Diploma in Nursing with Registration in the School of Nursing and Midwifery and will lead on their involvement in MACFOB. She is responsible for research and evaluation of the HEA and ESRC funded Virtual Interactive Practice (VIP) initiative and has been involved with a range of funded research projects including evaluation of nursing education and training provision.
- **Joy Moloney** is Learning and Teaching Coordinator in the Faculty of Engineering, Science and Mathematics and manages the implementation of many aspects of the University's and schools' learning and teaching enhancement strategies and policies and contributes to the development and implementation of education enhancements across schools at both Faculty and University levels.
- **Karen Deakin** is Assistant Librarian for User Services at the University's National Oceanographic Library and has responsibility for delivering Information skills training to School of Oceanography and Earth Sciences, some of which occurs through Podcasting
- **Alistair Fitt** is Head of the school of mathematics, one of the largest mathematics departments in the UK and voted the best Russell Group Mathematics School in the National Student Survey. Professor Fitt is investigating the use of podcasting of mathematics lectures.
- **Lisa Harris** is Senior Lecturer in Marketing in the School of Management and Programme Director for the Marketing Analytics MSc and runs workshops on how to use web 2.0 technologies and is exploring ways of using the technology to enhance teaching and communications, particularly for international students.

23. Value for money

MACFOB will be extremely good value for money, producing outputs of long term value and benefiting from a very experienced team and organization. The investigators involved in this

proposal have extensive experience in information modelling, the social web and ubiquitous computing and have been involved in multimedia, hypertext, web and knowledge development for twenty years, and are internationally recognised for their application of these technologies to the domain of e-learning. In addition MACFOB will build on the knowledge, expertise and experience gained through previous projects (e.g. Memetic, CoAKTinG, HyStream and Microcosm, DLS, COHSE and Auld Linky) and will be able to draw on related expertise within other groups in the institution and worldwide. The institutional contribution and involvement of those responsible for developing and supporting the institutional learning and teaching and e-learning enhancement strategies reflects the part the project will play in helping the University of Southampton achieve its objective³⁸ to promote 'student-centred learning' and 'inclusivity' by 'producing world leading e-learning resources and activities' and 'considering novel approaches to the way that ... academic staff prepare teaching materials'. Institutional support will continue beyond the end of the project to help ensure embedding and sustainability. The involvement of learners and teachers on actual courses will allow the project to benefit from existing technology resources and domain experts, instructional designers and teaching and support staff's skills, expertise and time in addition to the necessary new resources requested.

24. Budget (further details are provided in Appendix)

Directly Incurred Staff	April 07– March 08	April 08– March 09	TOTAL £
Research Fellow/ Project Manager pt31 100% FTE	£ 8,581	£ 36,974	£ 45,555
Research Fellow pt27 100% FTE	£ 7,610	£ 32,791	£ 40,401
Research Fellow pt27 100% FTE	£ 7,610	£ 32,791	£ 40,401
Commissioned work: 12 days	£ 2,200	£ 4,600	£ 6,800
Total Directly Incurred Staff (A)	£ 26,001	£107,156	£133,157
Non-Staff	April 07– March 08	April 08– March 09	TOTAL £
Travel and expenses	£ 1,200	£ 8,050	£ 9,250
Hardware/software	£ 16,900		£16,900
Dissemination	£ 1,000	£ 2,000	£ 3,000
Evaluation		£ 1,500	£ 1,500
Recruitment	£ 2,400		£ 2,400
Total Directly Incurred Non-Staff (B)	£ 21,500	£11,550	£33,050
Directly Incurred Total (A+B=C) (C)	£47,501	£118,706	£166,207
Directly Allocated	April 07– March 08	April 08– March 09	TOTAL £
Staff	£ 11,920	£ 49,842	£ 61,762
Estates	£ 15,113	£ 63,198	£ 78,311
Directly Allocated Total (D)	£ 27,033	£113,040	£140,073
Indirect Costs (E)	£ 36,909	£154,340	£191,249
Total Project Cost (C+D+E)	£ 111,443	£ 386,086	£497,529
Amount Requested from JISC	£ 44,799	£ 155,201	£200,000
Institutional Contributions	£ 66,644	£ 230,885	£297,529
Percentage Contributions over the life of the project	JISC 40.2 %	Partners 59.8%	Total 100%

³⁸ <http://www.soton.ac.uk/quality/strategies/ltes.html>

Appendix: MACFOB

The following information is provided with this 10 page proposal

- Technical annex screen captures pages ii-iii
- Further budget details page iv
- CVs of investigators pages v-xvi
- Supporting letter from institution page xvii

Figure 7 shows a possible user customisable display for replay and interaction while figures 3-6 show actual screen displays of some of the software already developed that has been used to help identify user requirements and to inform the design of the technologies to be further developed, built and integrated.

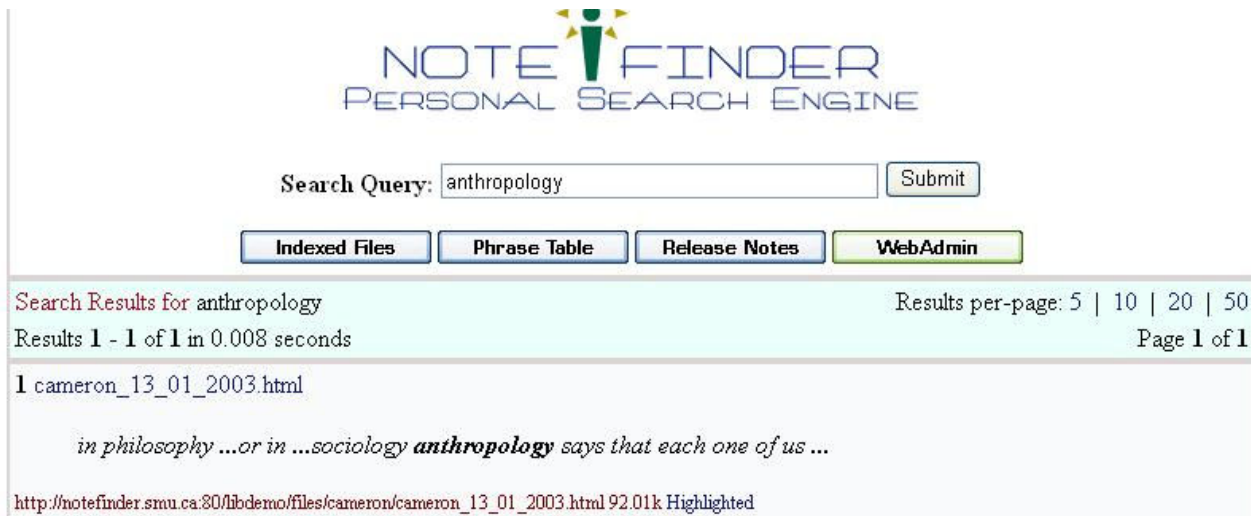


Figure 3. LL Notefinder Personal Search Engine for synchronized captioned multimedia ³⁹

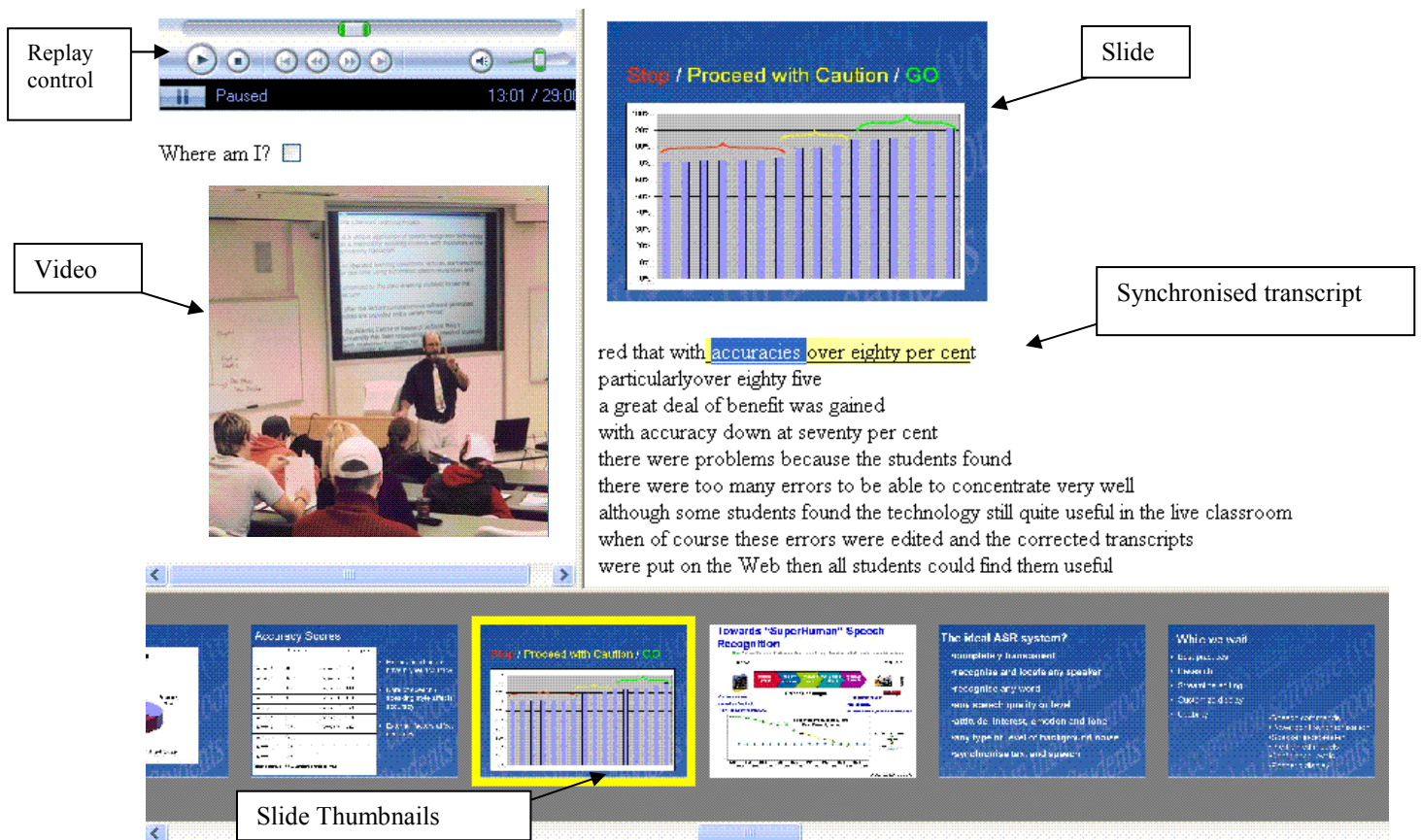


Figure 4. IBM ViaScribe synchronised captioned multimedia display

³⁹ http://www.liberatedlearning.com/note_finder.shtml

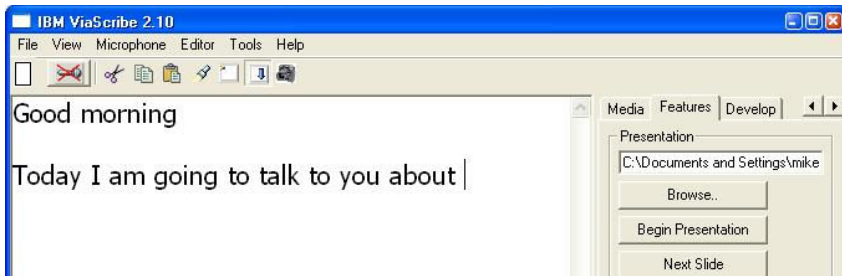


Figure 5. IBM ViaScribe using speech recognition to create synchronised text captions in real-time

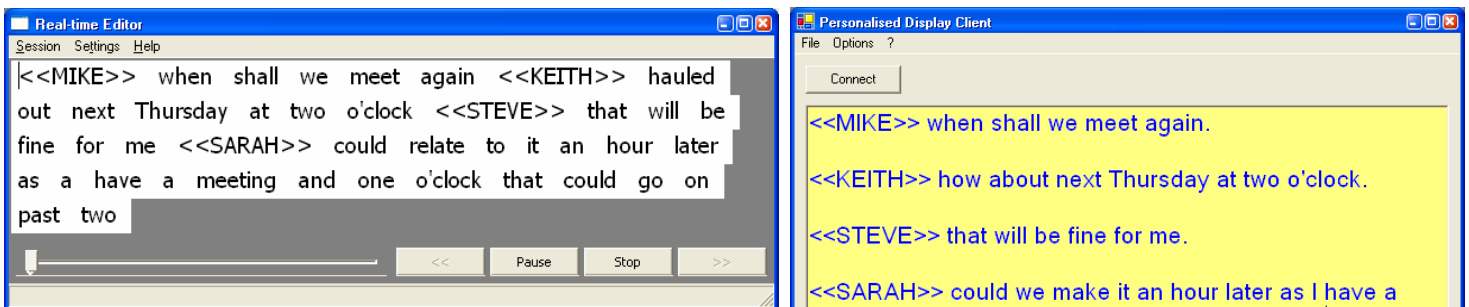


Figure 6. Real-time editing and personal wireless display of corrected multiple speaker captions

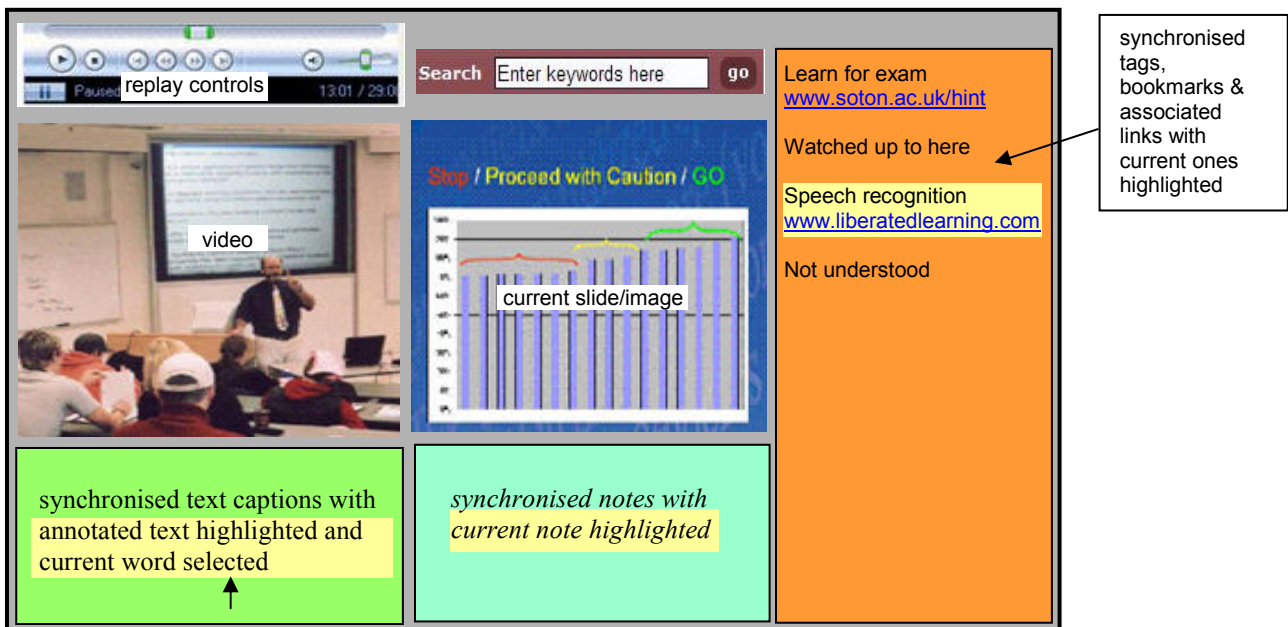


Figure 7. Example user customisable MACFOB display/interface

Further Budget Details: MACFOB

4.54% indexation in 2nd year of project

Directly incurred costs

	<i>Days</i>	<i>Grade</i>	<i>Rate £</i>	<i>FEC £</i>
Commissioned work year 1				
Liberated Learning Consortium	4	4	550	2,200
Commissioned work year 2				
Liberated Learning Consortium	8	4	574.97	4,600
Equipment year 1	<i>Qty</i>		<i>Unit £</i>	
PC & software for RFs & studies	6		1,500	9,000
Server & software	1		2,000	2,000
radio microphones	2		400	800
voice recorders	2		300	600
video camera & software	1		1,500	1,500
Speech Rec' software licenses	1		3,000	3,000
Travel & subsistence year 1	<i>Qty</i>		<i>Rate £</i>	
UK meetings	6		200	1,200
Travel & subsistence year 2				
UK meetings	24		209.08	5,018
UK conference	2		732	1,464
Overseas conference	1		1,568	1,568
Other year 1	<i>No.</i>	<i>Grade</i>	<i>Rate £</i>	<i>FEC £</i>
Recruitment advertising	3	1	800	2,400

Directly allocated costs

	<i>Mnth</i>	<i>Util</i>	<i>Spine</i>	<i>Gross £</i>	<i>FEC £</i>
Personnel year 1					
Principal investigator ECS	3	15%	52	64,556	2,421
ECS co-investigator	3	10%	52	64,556	1,614
ECS co-investigator	3	5%	59	74,590	932
ECS co-investigator	3	5%	48	57,591	720
ECS co-investigator	3	5%	48	57,591	720
Nursing & Midwifery co-investigator	3	5%	52	64,556	807
Management co-investigator	3	5%	52	64,556	807
Maths co-investigator	3	5%	59	74,590	932
FESM/SOEC co-investigator	3	5%	48	57,591	720
ISS co-investigator	3	5%	52	64,556	807
Lateu co-investigator	3	5%	48	57,591	720
Library co-investigator	3	5%	48	57,591	720
Personnel year 2					
Principal investigator ECS	12	15%	52	67,487	10,123
ECS co-investigator	12	10%	52	67,487	6,749
ECS co-investigator	12	5%	59	77,976	3,899
ECS co-investigator	12	5%	48	60,206	3,010
ECS co-investigator	12	5%	48	60,206	3,010
Nursing & Midwifery co-investigator	12	5%	52	67,487	3,374
Management co-investigator	12	5%	52	67,487	3,374
Maths co-investigator	12	5%	59	77,976	3,899
FESM/SOEC co-investigator	12	5%	48	60,206	3,010
ISS co-investigator	12	5%	52	67,487	3,374
Lateu co-investigator	12	5%	48	60,206	3,010
Library co-investigator	12	5%	48	60,206	3,010

Dr Mike Wald

Education

1985 Doctor of Philosophy ISVR University of Southampton

1978 PG Diploma of British Association of Teachers of the Deaf

1975 MA University of Oxford

1974 PG Diploma in Education, University of Warwick

1973 BA Hons Engineering Science, University of Oxford

Relevant experience includes:

Dr Wald works within the Learning Societies Lab, ECS at the University of Southampton. He has been responsible for nearly £1million grant funding and advised HEFCE, JISC, BECTA, IBM/Liberated Learning Consortium, and Universities on enhancing learning through technologies including speech recognition.

University of Southampton	2003-	Senior lecturer ECS
University of Southampton	1997-2003	Director of regional widening participation consortia (SHEC/SHFEC)
University of Southampton	1994-1997	Director of regional centre for enabling and learning technologies (CELT) Director MSc Computer Based Learning and Training
University of Southampton	1986-1997	Senior lecturer computers and education
Grove Park School	1984-1986	ICT advisor
University of Southampton	1979-1984	Research fellow
St Thomas's School	1976-1979	Teacher/technology advisor
GEC	1975-1976	Design and development engineer
Fidelity Audio	1974-1975	Production and development engineer

Recent relevant publications include:

Wald, M. (2008) Learning Through Multimedia: Automatic Speech Recognition Enhancing Accessibility and Interaction. *Journal of Educational Multimedia and Hypermedia* 17(2) (in press)

Wald, M. and Bain, K. (2007) Universal Access to Communication and Learning: The Role of Automatic Speech Recognition. *Universal Access in the Information Society* 6(4) (in press)

Wald, M., Bell, J., Boulain, P., Doody, K. and Gerrard, J. Correcting Automatic Speech Recognition Errors in Real Time. *International Journal of Speech Technology*. (in press)

Wald, M. (2006) Creating Accessible Educational Multimedia through Editing Automatic Speech Recognition Captioning in Real Time. *International Journal of Interactive Technology and Smart Education: Smarter Use of Technology in Education* 3(2) pp. 131-142.

Wald, M. (2006) An exploration of the potential of Automatic Speech Recognition to assist and enable receptive communication in higher education. *ALT-J, Research in Learning Technology* 14(1) pp. 9-20.

Wald, M. (2006) Learning Through Multimedia: Automatic Speech Recognition Enabling Accessibility and Interaction. *Proceedings of ED-MEDIA 2006: World Conference on Educational Multimedia, Hypermedia & Telecommunications* pp. 2965-2976

Professor Alistair Fitt

Present Appointment since 2003

Head of the School of Mathematics, University of Southampton

Previous Academic Appointments

Dates	Appointment
Oct 1983 - Sept 1984	Research assistant, Oxford Univ. Eng. Laboratories
Oct 1984 - Sept 1986	Research officer, Mathematics and Ballistics Group, RMCS Shrivenham, Swindon, Wilts
Oct 1986 - Sept 1988	Lecturer in Mathematics, Mathematics and Ballistics Group, RMCS Shrivenham, Swindon, Wilts
Oct 1988 - Sept 1989	Senior Research Fellow, Mathematics and Ballistics Group, RMCS Shrivenham, Swindon, Wilts
Oct 1989 - Sept 1994	Lecturer, Faculty of Mathematical Studies, University of Southampton
Oct 1994 - June 1998	Senior Lecturer, Faculty of Mathematical Studies, University of Southampton
Jul 1998 - June 2000	Reader, Faculty of Mathematical Studies, University of Southampton
Oct 2003 – July 2003	Dean, Faculty of Mathematical Studies, Head of the Mathematics Department

Qualifications

1980	B.A. (Hons) Mathematics (1 st class) Lincoln College, Oxford
1981	MSc Mathematical Modelling and Numerical Analysis, (Distinction) Oxford
1984	DPhil Mathematics
1984	MA Lincoln College, Oxford

Summary of significant personal achievements

- Lengthy experience of teaching a wide range of courses to mathematicians of all levels, scientists and engineers (service teaching) and non-mathematicians (e.g. Army Staff Course): consistently high personal ratings on student questionnaire evaluations
- Lengthy experience of setting up, designing and running short courses
- Lengthy experience of running “modelling weeks” for PhD students working for a week in groups on a particular mathematical problem (over 20 such meetings worldwide)
- Experience of designing, setting up, funding and running a successful MSc programme
- Wide range of experience of successful supervising 9 Ph.D. and 26 MPhil and MSc Students
- Innovation in teaching
- Considerable experience in teaching pre-University mathematics (e.g. high-achieving 6th formers course, foundation year, residential 6th formers course, outreach lectures)
- 66 Peer-reviewed publications
- 3 EPSRC & 2 Royal Society grants
- Member of University Senate, University Council and a number of University Committees

Adam Warren

Qualifications

Date	Award	Subject	Class	Awarding Body
2001	MEd	Networked Collaborative Learning		University of Sheffield
1981	BSc	Mechanical Engineering	2/2	University of Southampton

Present Appointment (Since 1996)

Adam Warren is Learning Technologist, Learning and Teaching Enhancement Unit University of Southampton. His role and responsibilities include:

- creating and running professional development events for academic staff on the effective pedagogical use of learning technologies. .
- creating printed and online resources to support the use of learning technologies by academic staff.
- producing accessible, usable, attractive websites, leaflets, manuals and posters using professional tools
- working with individuals and groups of academic staff to implement the use of learning technologies.
- participating in University-level policy committees concerned with eLearning.
- collaborating with other learning support staff across the University to evaluate the potential of new learning technologies through pilot projects. Recent examples include learning object repositories, student portfolio systems and add-ons to our Blackboard VLE to enable blogs and wikis.

Previous Appointments

Dates	Appointment
1987-96	Computing Support Officer, Southampton University Computing Services
1986-87	Computer Graphics and DTP Specialist, Paintpot Computers Ltd.

Publications

Maier, P. and Warren, A. *Integrating Technology in Learning and Teaching*, London, Kogan Page, 2000, 162

Warren, A., Brunner, D., Maier, P., Barnett, E., *Technology in Teaching and Learning*, London, Kogan Page, 1998, 138

Maier, P., Barnett, E., Warren, A., Brunner, D., *Using Technology in Teaching and Learning*, London, Kogan Page, 1998, 132

Dr Hugh Davis BSc, MSc, PhD, MBCS, FHEA, CITP

Present Appointment: (since 2005)

University Director of Education (with responsibility for eLearning Strategy)

Head of Learning Societies Lab (within Electronics and Computer Science)

Other Experience

1987-2004	Teaching Fellow/ Temporary Lecturer/Lecturer/Senior Lecturer, in ECS
1984-1987	Head of Computer Studies at Cranleigh School in Surrey
1981-1984	Teacher of Science & Asst. Housemaster, Bembridge School, Isle of Wight.
1977-1978	Proprietor of Yarmouth Sea School, Isle of Wight
1975-1977	Senior Residential Social Worker at Eastmore House, Isle of Wight
1973-1975	Residential Social Worker at The Court Assessment Centre, Burley-in-Wharfedale
1972-1973	Teacher of Science at Ghyll Royd Prep School in Ilkley.

Summary of current research and scholarship

Involved and lead a number of projects within eLearning Frameworks; Learning Objects for Assessment, Personalisation of Learning and Architectures for eLearning funded by the EU, Eduserv, and JISC Programmes including the FREMA domain model, The DialogPLUS DLIC project, the mPLAT Cross Institutional eLearning project. ELeGI project (European Learning Grid Infrastructure – IST Framework 6), CORE (Collaborative Orthopaedic Research Environment) projects, and Edinburgh's DiscoveryPlus Project, IMS QTI specification through the E3AN project, the TOIA project, membership of the CETIS Assessment SIG. Supervise 8 PhD students.

Recent External Responsibilities

- closely involved in the work of the Learning and Teaching Support Networks for Information and Computer Science (LTSN-ICS) and for Engineering (LTSN Engineering) with invited talks and conferences and workshops on a wide range of topics.
- external examiner to two universities at BSc and MSc level.
- computer science subject reviewer for the QAA and an HEA registered practitioner
- on the steering groups of a number of national projects funded by TLTP and FDTL.
- member of the JISC Learning and Teaching Committee
- programme, conference and workshop chairs at national and international conferences
- editor of BJET special issue on "Critical Success Factors for Institutional Change" Nov 2007.
- on editorial board of the Journal New Review of Hypermedia and Multimedia
- subject reviewer (computing) for QAA (trained April 2003)
- contributing member of the CETIS Interoperability Standards Working Group on QTI
- steering group member of IBIS project (SHEFCE) run by Strathclyde (2003-2005)

Recent publications

Abdullah, N. A. and Davis, H. C. (2005). A Real-time Personalization Service for SCORM. The 5th IEEE International Conference on Advanced Learning Technologies (ICALT 2005), Kaohsiung, Taiwan.

Bailey, C., Fill, K., Zalfan, M., Davis, H. C. and Conole, G. (2005). Panning for Gold: Designing Pedagogically-inspired Learning Nuggets. UNFOLD-PROLEARN Joint Workshop (Current Research on IMS Learning Design), pages pp. 49-59, Valkenburg, Netherlands. Koper, R., Tattersall, C. and Burgos, D., Eds.

Davies, W. M., Howard, Y., Millard, D. E., Davis, H. C. and Sclater, N. (2005). Aggregating Assessment Tools in a Service Oriented Architecture. 9th International CAA Conference, Loughborough.

Fill, K. E., Bailey, C., Conole, G., Davis, H. C., Leung, S. Y. and Priest, S. (2005). Developing and using a learning design toolkit. ALT-C, Manchester, UK.

Millard, D., Howard, Y., Bailey, C., Davis, H., Gilbert, L., Jeyes, S., Price, J., Sclater, N., Sherratt, R., Tulloch, I., Wills, G. and Young, R. (2005). Mapping the e-Learning Assessment Domain: Concept Maps for Orientation and Navigation. e-Learn 2005, Vancouver, Canada.

Wills, G. B., Gilbert, L., Gee, Q., Davis, H. C., Miles-Board, T., Millard, D. E., Carr, L. A., Hall, W. and Grange, S. (2005). A Grid Services Implementation for a Virtual Research Environment. 1st International ELeGI Conference on Advanced Technology for Enhanced Learning, Vico Equense - Napoli (Italy).

Robert Price

Present Appointment: - Education Service Manager ISS, University of Southampton

Date of appointment to present post: March 2000

Duties and responsibilities:

Strategic leadership in the development and deployment of systems and services to support the University's Teaching and Learning activities. The scope and involvement is at University level with Education Policy Committee, Academic Quality and Standards Committee and E-learning groups to deliver business objectives through the effective deployment of ICT.

Academic Qualifications

Masters degree in Business Administration	(MBA)	Warwick University
BA (Hons) degree in Mathematics and Statistics		Open University
Full Technological Certificate in Telecommunications		Birmingham Polytechnic

Professional Qualifications

ITIL Service Managers Certificate

Prince 2 Registered Practitioners

ISO 9001 Quality audit training

Professional Membership and Institutions

Higher Education Academy	(Fellow)	FHEA
Chartered Management Institute	(Member)	MCMI
Institute of Incorporated Engineers	(Member)	IEng
ALT-C	(Member)	

Previous Work History

University of Southampton Computing Services- Teaching and Learning Manager

Open University- Associate Tutor- "You, your computer and the Internet".

LSU College HE- Head of Learning Resource Support Services

Stoke College/ Stafford College- Learning Resources Centres Manager

BT College Stone- Technical Trainer/ Technical Officer

Publications & Conference Papers

Price R.L (2000) Using C&IT Services (Poster presentation) ILT conference, York

Price, J. and Price, R.L. (2005) Finding the True Incidence Rate of Plagiarism, International Education Journal, 6(4), p421-429.

Lester Gilbert

Education

1996 Post-graduate Certificate in Education.

1978 MSc (Psychology) (Distinction).

1974 BSc (Hons) (First Class)

Experience

Southampton University 2001- Lecturer, Information Technology
I joined the University of Southampton as part of its initiative for widening participation and life-long learning in its recent "New College" initiative, where one of my major roles involved the development of e-learning provision. I am now located in the School of Electronics and Computer Science (ECS) in the Learning Technologies Group of researchers and projects.

I have prepared a monograph, *Principles of e-Learning Systems Engineering*, scheduled for publication in 2007, which integrates my business-oriented practical experience of Information Systems development with Multimedia and Computer Aided Instruction development. This work forms the basis of my focus on e-learning and the use of the Web and other technologies in learning and teaching.

Currently, I am the Principal Investigator on the JISC-funded EFSCE project and a co-investigator on PeerPigeon and AsDel. I have been a co-investigator on a number of completed JISC-funded projects including FREMA, CORE, and R2Q2.

I have participated in a number of recent conferences and workshops, including TENcompetence, UNFOLD, and the JISC Conference (Edinburgh 2005).

Canterbury Christ Church University 1994-2001 Senior Lecturer, Information Technology

University of Paisley 1993-1994 Lecturer, Information Systems

MRC Laboratories, The Gambia 1990-1992 Head of Computing and Statistics

Penn Point Systems 1989-1990 Technical Director

Intra Systems 1987-1988 Technical Manager

Syntek 1985-1987 Consultant

Ellesmere Electronics 1982-1984 Programmer, Consultant, Manager

University of South Africa 1981 Senior Lecturer

University of Cape Town 1974-1980 Lecturer

Recent Publications

Gilbert, L. and Gale, V. (2007). *Principles of E-learning Systems Engineering*. Chandos.

Sitthisak, O., Gilbert, L., Davis, H. C. and Gobbi, M. (2007). Adapting health care competencies to a formal competency model. In Proceedings of The 7th IEEE International Conference on Advanced Learning

Technologies (ICALT 2007) (in press), Niigata, Japan. Wills, G., Bailey, C., Davis, H., Gilbert, L., Howard, Y., Jeyes, S., Millard, D., Price, J., Sclater, N., Sherratt,

R., Tulloch, I. and Young, R. (2007). An E-Learning Framework for Assessment (FREMA). In *Proceedings of International CAA Conference*, Loughborough UK.

Sitthisak, O., Gilbert, L. and Davis, H. C. (2007). Towards a competency model for adaptive assessment to support lifelong learning. In *Proceedings of TENCompetence Workshop on Service Oriented Approaches and Lifelong Competence Development Infrastructures* (in press), Manchester

Dr Gary Wills

Senior Lecturer in Computer Science at the University of Southampton.

Education

July 2003	Post graduate Certificate in Advanced Educational Studies
July 2002	Post Graduate Certificate of Academic Practice
Jan 2000	Doctor of Philosophy, Design and Evaluation of Industrial Hypermedia
July 1995	BEng (Hons), 2:1, Electromechanical Engineering
July 1992	HNC Mechanical & Manufacturing Engineering

Summary of current research and scholarship activities

Gary's main research area is in the application of advanced knowledge technologies, and in particular Personal Information Environments, for the industrial, education and medical domains.

Gary is the project manager of a number of JISC funded projects that use a service-oriented architecture: For instance the Collaborative Orthopaedic Research Environment project funded under the first VRE call, the R2Q2 and ASDEL projects under the latest Tools call. He is also an investigator on a number of JISC funded projects; for example the Claret project building tools for repositories, the m-Plat project for mobile learning, the reference model for assessment (FREMA) project, PeerPigeon developing rest services for Peer Review and EFSCE for course evaluation questionnaires. Gary is a member of the CETIS Assessment SIG. Sample Relevant Projects and Consultancy. Gary also has project with DTI and EPSRC for developing hypermedia application and semantic tools for industry. Gary was also the Technical manager for the EU funded Virtual Orthopaedic European University project (VOEU), responsible for developing the infrastructure for a Virtual Learning Environment for post-graduate training in surgery.

Professional bodies

Gary is a member of a number of professional institutions: Engineering Council as a Chartered Engineer; the Institution of Engineering and Technology, as Member, and the Institute for Learning and Teaching (now the Higher Education Academy) as a Member. He is also a member of the CETIS Assessment SIG.

Recent Relevant Publications

Frazer, A., Argles, D. and Wills, G. (2007) Is Less Actually More? The Usefulness of Educational Mini-games. In Proceedings of The 7th IEEE International Conference on Advanced Learning Technologies, Niigata, Japan.

Wang, C., Davis, H., Dickens, K., Wills, G. and White, S. (2007) Finding the Right Tool for the Community: Bringing a Wiki-Type Editor to the World of Reusable Learning Objects. In Proceedings of the 7th IEEE International Conference on Advanced Learning Technologies (ICALT 2007).

Wills, G., Davis, H., Gilbert, L., Hare, J., Howard, Y., Jeyes, S., Millard, D. and Sherratt, R. (2007) Delivery of QTIv2 Question Types. In Proceedings of International CAA Conference, Loughborough UK.

Argles, D., Frazer, A., Wills, G. and Wald, M. (2007) Learning Through Rich Environments. In Proceedings of EdMedia, Vancouver.

Wills, G., Davis, H., Chennupati, S., Gilbert, L., Howard, Y., Jam, E. R., Jeyes, S., Millard, D., Sherratt, R. and Willingham, G. (2006) R2Q2: Rendering and Responses Processing for QTIv2 Question Types. In *Proceedings of 10th International CAA Conference*, Loughborough University, UK.

Karen Deakin

Qualifications

Canterbury Christ Church College
BSc (Hons) Science and Social & Educational Studies 2:2 July 1993

Thames Valley University
Information Management Postgraduate Diploma Pass July 1997

Library Association now CLIP
Associate Chartership of the Library Association Pass March 2001

Employment History

Sept 1993–
Aug 1997 Canterbury Christ Church College, The Library, Canterbury Christ Church College.
Library Assistant.

Aug 1997–
Oct 1999 Zoological Society of London, The Library, Zoological Society of London.
Library Assistant

Oct 1999–
Apr 2001 Isle of Wight College, Isle of Wight College of Further Education
Learning Advisor.

Apr 2001–
Feb 2002 Brunel University, Brunel University, Uxbridge.
Assistant Librarian.

Feb 2002–
to present National Oceanographic Library, National Oceanography Centre, University of
Southampton,
Assistant Librarian – User Services

Dr Lisa Harris ACIB, DipM, MCIM, MBA, PhD

Full Time Employment

Senior Lecturer in Marketing, University of Southampton School of Management 007 – present

- Programme Director for the Marketing Analytics MSc.

Brunel Business School, Brunel University, West London, 1998 – 2007

- *Director, Brunel MBA:* My responsibilities included the operational management of the programme, development of collaborative projects; student mentoring; course promotion; training of administrative and teaching staff; integration of e-learning into the course curriculum; development of new teaching materials; managing the successful launch new MBA Programmes in 2005 and 2007.
- *Senior Lecturer in Marketing:* I ran courses in Online Marketing, Strategic Marketing, e-Business, Marketing Research and International Marketing for both undergraduate and postgraduate degree programmes. In 2006 I won the Vice Chancellor's Teaching Award after nomination by my students.
- *Course Director, BSc e-Commerce:* I successfully led an inter-faculty team to develop and launch this innovative programme in 2000 and managed the course until 2004. It integrates both business and technical aspects of e-Commerce and was the first degree programme of its kind in the UK.

Lloyds Bank PLC, International Banking Division, 1984 – 1994:

- Marketing management roles in key account management, new product development and customer service provision within the financial services industry, based in London, Birmingham and Aylesbury.

Current Part Time Employment

- Board Member, International Board of Trustees, Chartered Institute of Marketing
- Chartered Institute of Marketing Revision Classes and Professional Development Courses delivered for Oxford College of Marketing and West London Student Support Group
- External Examiner, BSc Marketing, University of Hertfordshire/INTI College Malaysia
- MBA E-learning Course Development, University of Luton
- Series Editor, Routledge E-business Books
- E-learning MBA Tutor, University of Liverpool
- Visiting Lecturer, University of Weingarten in Germany, Zurich University in Switzerland

Education

- Doctor of Philosophy (Brunel University) 1999
- Master of Business Administration (Oxford Brookes University) 1994
- Chartered Institute of Marketing Post-Graduate Diploma 1994
- Associate of the Chartered Institute of Bankers 1989

Professional Membership

- Chartered Marketer; Member of Chartered Institute of Marketing
- Certified e-learning Tutor, University of Liverpool

Recent Books

Harris, L. and Dennis, C. (2007) 2nd Edition, "Marketing the e-Business" Routledge

Harris, L. and Budd, L. (eds) (2007) "eGovernance: Managing or Governing?" Routledge

Harris, L. and Budd, L. (eds) (2004) "e-Economy: Rhetoric or Business Reality?" Routledge

Jackson, P., Harris, L. and Eckersley, P. (eds) (2003) "E-business Fundamentals" Routledge

Recent Journal Articles

Harris, L. and Vincent, J. (2007) "Effective use of mobile communications In e-government: how do we reach the tipping point?" Information, Communication and Society, forthcoming

Harris, L. and Duckworth, K. (2005) 'The management of change in the travel industry' Strategic Change

Harris, L. and Ayios, A. (2005) 'Customer Relationships in the e-Economy: Mutual Friends or just a Veneering?' International Journal of Qualitative Marketing Research

Funded Projects

"Abandoned heroes" investigation of small firms' innovative use of information technology. £120,000 joint project with Royal Holloway and Kingston Universities, sponsored by West Focus, 2005-present
Market research undertaken for Preston Holidays Jersey to develop strategic marketing plan, July – August 2005

Dr Mary Gobbi PhD MA Ed, Dip N Dip N Ed, RGN

Current Posts And Education

Dates	Position	University/Institution
2003- date	Senior Lecturer	University of Southampton School of Nursing and Midwifery
1995-2003	Lecturer in Nursing	University of Southampton
1992-1995	Nurse Teacher	Southampton University College of Nursing and Midwifery
1989-1992	Lecturer in Nursing	University of Liverpool on secondment to the University of Malta
1988-1989	Full time masters student	University of Southampton
1975-1988	Nurse teacher, ward sister and other clinical posts.	St Mary's Hospital and School of Nursing London. Guy's Hospital, London

Date	Degree	Subject	University/Institution
1998	PhD	Adult Education	University of Southampton
1989	MA (Ed)	Adult and Post Compulsory Education	University of Southampton
1985	Diploma	Nurse Education	University of London/Royal College of Nursing
1979	Diploma	Nursing	University of London/West London Institute of Higher Education
1980	Certificate /Professional	Intensive Care Nursing	Joint Board of Clinical Studies
1978	Professional Registration	General Nursing	General Nursing Council

Academic qualifications in nursing and education with a particular interest in health care and nurse education and workforce issues. Research interests in learning and development in health care practice, use of technologies in simulation, qualitative methodologies and evaluation research. Currently PI/collaborator for 3 funded projects associated with the use of technologies for learning. Previous research experience includes evaluation work in the Republic of Ireland, leadership in the NHS, and assessing student midwifery competences. Currently the co-ordinator for Nursing in the EU Socrates Erasmus Tuning project that is developing pan-European competences for graduates. This involved survey work in 13 countries, EU Counsellor and guest speaker/advisory work on the Bologna process and health care education. Has an extensive background in educational developments and innovation, including interprofessional experience at undergraduate and postgraduate level.

Reviewer for Qualitative Health Research Journal, Advances In Education Science and Nurse Education Today.

Most Recent Publications

Harper, P, Ersser S.J. and Gobbi, M. (2007) How military nurses rationalise their post-operative pain assessment decisions. *Journal of Advanced Nursing* . 59 (6) 601-611

Gobbi, M., and Brown, J Chapter 1 (2007) Ontology and epistemology of nursing. In Brown, J and Libberton, P. *Introduction to Professional Studies in Nursing*. Palgrave. MacMillan

Murphy, A Y, van Teijlingen E R and Gobbi M O. 2006 Inconsistent grading of evidence across countries: a review of low back pain guidelines. *Journal of Manipulative and Physiological Therapeutics (JMPT)* Sept: 29 (7) 576-81

Watkinson, G., Spencer A, Monger, E, Weaver, M and Gobbi M (2006) Teaching Nursing through Clinical System Tools in Nursing and Informatics for the 21st Century: An International Look at Practice, Trends, and the Future, edited by Weaver, C., Delaney, C., Weber, P and Carr, R. Healthcare Information and Management Systems Society, Chicago.

Gobbi, M., editor of Nursing Chapters In González, Julia and Robert Wagenaar, eds. Tuning Educational Structures in Europe II. Universities' contribution to the Bologna Process, Groningen and Bilbao 2005. <http://www.tuning.unideusto.org/tuningeu/index>.

Gobbi, M. (2006) Nursing Practice as bricoleur activity: a concept explored. *Nursing Inquiry*. 12(2) 117-125

Joy Maloney**Professional Achievements****Education development, change agent role**

- Institution lead for PDP, supporting change across University at all levels
- Ongoing work with 3 Schools in Faculty to embed employability and other learning and teaching strategic goals
- Member of University task groups including Employability and Inclusivity
- Member of elearning benchmarking team
- Actively encouraged the development of many elearning/communication education enhancements e.g. use of personal response systems, e assessment

Work History	Learning and Teaching Coordinator	Faculty of Engineering Science and Mathematics University of Southampton	April 2004 - present
	Lecturer, tutor	LDC, and School of Management, University of Surrey,	Jan 2003 – June 2004
	Senior lecturer	University of Portsmouth	1992 –July 2002
	Training consultant	Self employed	1982 -2000 f/t then p/t
Education	BA (Hons) University of London	Middlesex Polytechnic	1974
	Postgrad Dip in Personnel Management	Middlesex Polytechnic	1975
Professional membership	CMIPD		



University
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Deputy Vice-Chancellor

Professor Caroline Thomas

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Mr Lawrie Phipps
JISC Executive
Northavon House
Coldharbour Lane
Bristol
BS161QD

27 September 2007

Dear Mr Phipps

Re: JISC Circular JISC Circular 02/07: Capital Programme: Users and Innovation: Next Generation Technologies and Practices (Phase 2)
Bid Title: Multimedia Annotation and Community Folksonomy Building (MACFOB)

I am writing to confirm the University's interest and commitment to the Multimedia Annotation Project in response to the Next Generation Technologies and Practices theme within the JISC Capital Programme.

The cross university project for which this bid seeks support is central to the University's e-learning strategy and consequently to our learning and teaching enhancement strategy. It will promote student-centred learning and inclusivity by producing world leading e-learning resources and activities and considering novel approaches to the way that academic staff prepare teaching materials. As such it will be complementary to existing initiatives within the University. The project will be led by Dr Mike Wald, a recognised expert in this field and involve Dr Hugh Davis, who is our lead for e-learning strategy as well as all the appropriate professional services and a number of Schools who are at a suitable stage of development to contribute immediately to the project. Aspects of this project are already underway and JISC funding will be highly beneficial in advancing the project. We understand the importance of continuing and supporting the work after the project funding completes.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Caroline Thomas'.

Professor Caroline Thomas
Deputy Vice-Chancellor