

<b>Cover Sheet for Proposals to Circular X/06: Learners Experience of e-Learning Programme</b> (All sections must be completed)	Bid for a: <del>*A) The Learners' Journeys project;</del> <del>*B) Institutional Studies project;</del> <del>*C) Support and Synthesis project;</del> <i>* Delete as appropriate</i>
<b>Name of Institution/Organisation:</b> <b>The University of Edinburgh</b>	
<b>Name of Partners</b>	
<b>Name of Proposed Project:</b> <b>Learner Experiences across the Disciplines (LEaD)</b>	
<b>Full Contact Details for Primary Contact:</b>  <b>Name: Dr Judy Hardy</b> <b>Position: Project Manager</b> <b>Email: j.hardy@ed.ac.uk</b> <b>Address: The University of Edinburgh</b> <b>James Clerk Maxwell Building</b> <b>Mayfield Road</b> <b>Edinburgh EH9 3JZ</b> <b>Tel No: 0131 650 6716</b> <b>Fax No: 0131 650 6555</b>	
<b>Length of Project: 20 months</b>	
<b>Project Start and End Dates:</b> <b>1 February 2007 – 30 September 2008</b>	
<b>Total Funding Requested from JISC:</b> <b>£74,470</b>	
<b>Funding Broken Down over Academic Years:</b> <b>£21,258 (06/07)   £45,672 (07/08)   £7,540 (08/09)</b>	
<b>Total Institutional Contribution:</b> <b>£18,618</b>	
<b>Outline Project Description</b>  <p>This project will undertake a study of first-year students from a variety of different entry routes and across a variety of subject areas at the University of Edinburgh. It will focus on "critical moments"; more specifically, it will look at the involvement and impact of learning technology on learners' transition to University and how their use of learning technology changes as they progress through their first year.</p> <p>Student groups will be selected from a number of different disciplines, including Physics, Divinity and Veterinary Medicine. Early years courses in all these disciplines have a well-established presence online, marrying the best of the online and real environments. Courses in all three subject areas have begun to gain experience and understanding of how to embed "Web2.0 tools" such as weblogs, podcasts etc in support of the teaching of these courses.</p>	

## 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.

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

Please see <http://www.ico.gov.uk> for further information on the Freedom of Information Act and the exemptions to disclosure it contains.

## Learner Experiences across the Disciplines (LEaD): Case for Support

### 1. Introduction

The LEaD project will undertake a study of first-year students from a variety of different entry routes and across a variety of subject areas at the University of Edinburgh. It will focus on "critical moments"; more specifically, it will look at the involvement and impact of learning technology on learners' transition to University and how their use of learning technology changes as they progress through their first year.

The main research questions that will be addressed are:

- What are learners' expectations regarding the availability and use of e-learning at University?
- How do learners adapt and change their approaches to e-learning during their first year at University?
- What are the key factors that influence learners' choices of e-learning strategies and how these are utilised?
- To what extent do learners use non-institutional / personal e-learning technologies to support their learning?

For a single institution, the University of Edinburgh has a diverse student intake. Approximately 40% of entrant students come from Scotland, 30% from the rest of the UK and the remainder from Europe and overseas. Incoming students have a diverse range of educational backgrounds and qualifications (including Highers, Advanced Highers, A levels and the International Baccalaureate), and ages (for example, over 10% of the undergraduate intake is under 18 at entry). The four-year honours degree programme allows for a broad-based curriculum built on principles of flexibility and choice, especially in the early years, with students able to select options from an extensive range of "outside courses".

This study will investigate the first year experience student groups selected from a number of different disciplines, including Physics, Divinity and Veterinary Medicine. Although we will identify students studying for degrees in these subject areas, the scope of the project will focus more widely across all courses that these students take, not merely restricted to those in host departments. The role of the academic partners in the project team is crucial. Together with significant expertise in deploying and utilising e-learning in their disciplines, they have major "advocacy" role in encouraging student participant compliance, and will be involved in the data gathering stage of the project, described in the project plan below.

Early years courses in all these disciplines have a well-established presence online, marrying the best of the online and real environments. Some have previously investigated the utilisation of online resources by student cohorts (Hardy et al, 2005, 2006). In addition, courses in all three subject areas have begun to gain experience and understanding of how to embed "Web 2.0 tools" (O'Reilly, 2005) such as weblogs, podcasts etc in support of the teaching of these courses. These tools, and the courses in which they are being trialled, emphasise a shift away from the transmission of knowledge, published by a respected authority, towards a more bi-directional and collaborative approach.

- **Divinity** The first year cohort includes a wide age profile from school leavers to mature returnees, providing a population with highly variable IT literacy levels and engagement with modern technology. E-learning uptake by the academic staff ranges from no engagement to courses with a rich blended approach where e-learning (including the use of Web 2.0 technologies like weblogs and podcasts) is an integral part of the teaching programme.
- **Physics** Physics students tend to arrive at University with high levels of IT literacy, some having been previously users of Web 2.0 technologies. Within the discipline in Edinburgh, we have used e-learning to support the face to face teaching of a campus University for 8 years, with recent excursions into Web 2.0 territory, using podcasts and wikis to support teaching and learning.
- **Veterinary Medicine** Veterinary students are typically high achieving highly motivated individuals. The traditional BVM&S degree is a 5 year programme, however from session 2006-2007 a 4-year graduate entry programme has also been offered which provides a

markedly different student cohort with widely varying experiences and backgrounds. All students have access to the school VLE "EEVeC" (the Edinburgh Electronic Veterinary Curriculum), embedded within which are a number of resources under the umbrella of the 'Virtual Veterinary Practice'. The resources include RSS feeds and web cams, and podcasts are under development. E-assessment is being piloted in selected courses and an e-portfolio is also due to be trialled in the current academic session

The project will use a mixed-mode approach incorporating the "Interview Plus" methodology proposed in the Phase 1 Learner scoping study by Sharpe et al (2005) and utilised in the Phase 1 LEX project (Learner Experience of e-Learning, Mayes, 2005). Interview Plus advocates the use of in-depth interviews building on some activity or artefact to guide recall and aid thinking. We will use a series of video diaries (thus extending the audio diaries approach used in the LXP project, see Conole et al, 2006). Selected diaries will also be made available to learner cohorts, with permission, in order to stimulate collaborative and group discussion. This will be done using Web 2.0 technologies, e.g. using podcasting for dissemination of video diaries together with discussion using weblogs and/or wikis. We also plan to incorporate additional data collection methods, including online questionnaires and analysis of online activity, for example from webserver logs. Stratified random sampling will be used (Patton, 1990) in order to obtain a balance of educational qualifications and achievement, age, sex and, crucially, level of technological expertise.

Since 1990 the University has been collecting information, through a survey conducted at enrolment, about newly arriving undergraduates' experience of, and attitudes towards, information and communication technologies and their use in teaching and learning. Initially these data were collected annually, and then on a two or three year cycle. Interesting trends have been manifest over the years. (Macleod et al., 2002). The survey has provided relatively low-level evidence, although its conduct through the enrolment process has meant high return rates (in the order of 80% of the population) and thus a genuinely representative picture. In the early years of this survey, results showed the vast majority of our students to be arriving with far lesser degrees of ICT experience than might popularly have been held to be the case. These findings demonstrated the need for institutional policy and action to support students in the cultivation of their ICT fluency in preparation for university studies. In recent years however, students can be seen to be arriving with a rich repertoire of ICT-related skills already formed, largely derived from their personal and social uses of the technologies. This is an exciting, though potentially disruptive, state of affairs affording great opportunities, though also posing significant management challenges (Nicholson et al., 2005). It is this rich and complex situation that the presently proposed study seeks, in part, to explore. In addition to the detailed explorations with targeted course groups proposed here, the institution would continue its survey of the population of first year undergraduates so that the detailed stories can be set in context of the wider picture. We will also investigate pre-enrolment access to 'MyEd', the University portal providing students with a single point of access to personal and registration details, course information, announcements etc., which is made available to students as soon as they have accepted an unconditional before matriculation

The project will be 20 months in length. It will start in February 2007 with recruitment of the project officer and finish at the end of September 2008. The February start date will also allow time for adequate preparation prior to learners being studied both before entry and across the whole of the academic session 2007/08. The project workplan, including major milestones and deliverables, are detailed in the following section.

The project will contribute to the "Learner Experiences of e-Learning" theme of the e-Learning and Pedagogy Strand of the JISC e-Learning Programme in a number of ways: It will provide rich and detailed data on the ways that learners utilise both institutional and personalised learning technologies, in particular as they make the critical transition to studying within a University environment; it will explore learners' expectations of and engagement with a variety of learning technologies, including Web 2.0; and will provide teaching staff with pointers, insights and examples of good practice for the use of learning technologies to support student learners, especially during (although not necessarily limited to) their early years at University.

## 2. Project Description

The project plan, including timescales and key deliverables, is shown in Table 1. In addition to the deliverables shown below, we also plan to disseminate the project outcomes via research publications and presentations at conferences (e.g. ALT-C 2008)

Date	Activity	Deliverable
Feb-Mar 07	<ul style="list-style-type: none"> <li>Advertise and appoint project officer.</li> </ul>	
Apr-Jun 07	<ul style="list-style-type: none"> <li>Start-up time; familiarisation with project.</li> <li>Set up website usage analysis tools.</li> <li>Create project website.</li> </ul>	
Jul-Aug 07	<ul style="list-style-type: none"> <li>Monitor and analyse pre-registration activity on MyEd portal</li> <li>Select, install and test of Web2.0 tools (e.g. weblogs and wikis) to be used for data collection.</li> </ul>	
Sep-Oct 07	<ul style="list-style-type: none"> <li>Administer online questionnaires.</li> <li>Identify groups for in-depth study.</li> </ul>	
Nov-Dec 07	<ul style="list-style-type: none"> <li>Record and disseminate first set of learner video diaries</li> <li>Set up online discussion groups. Moderate and facilitate discussion, with input from academic partners.</li> </ul>	<ul style="list-style-type: none"> <li><i>1<sup>st</sup> set of case studies (video diaries)</i></li> </ul>
Jan-Apr 08	<ul style="list-style-type: none"> <li>Continue online discussion.</li> <li>Second set of learner video diaries.</li> <li>In-depth interviews.</li> <li>Write up initial results for dissemination.</li> </ul>	<ul style="list-style-type: none"> <li><i>2<sup>nd</sup> set of case studies (video diaries)</i></li> <li><i>Interim report (initial research findings)</i></li> </ul>
May-Aug 08	<ul style="list-style-type: none"> <li>Final set of video diaries at the end of the academic session.</li> <li>Data analysis.</li> <li>Write up for final reports and publication.</li> </ul>	<ul style="list-style-type: none"> <li><i>3<sup>rd</sup> set of case studies (video diaries)</i></li> </ul>
Sep 08	<ul style="list-style-type: none"> <li>Complete final reports.</li> </ul>	<ul style="list-style-type: none"> <li><i>Summary report</i></li> <li><i>Methodological report</i></li> </ul>

**Table 1 Project plan, timescales and deliverables**

The main risks for the project are summarised in Table 2. This is not a comprehensive “risk list”, but is intended to show those risks that would have a high impact on the project together with strategies that will be used to avoid or control the risk

Risk	Probability	Mitigation
Little engagement from students	Probable/possible	<ul style="list-style-type: none"> <li>Maximise engagement through enthusiastic and motivated course organisers</li> <li>Offer incentives for participation</li> <li>Use a variety of techniques for data gathering (including online and face-to-face)</li> <li>Provide information on project aims and objectives e.g. via project website</li> </ul>
Poor quality discussion	Possible	<ul style="list-style-type: none"> <li>Mediation and stimulation by academic and project staff</li> </ul>
Lack of access to video recording equipment	Unlikely	<ul style="list-style-type: none"> <li>Provide variety of methods e.g. webcams + personal laptop, bookable slots for University equipment</li> <li>Use alternative approaches e.g. audio diaries</li> </ul>

**Table 2 Major (high impact) risks**

This project will address the issue of a critical transition point, namely that from school to university. It will investigate a heterogeneous range of students on courses with an established e-learning presence. We believe that the variability in our student population and teacher engagement with e-learning is typical of many institutes and makes it an ideal example for study by the JISC community. The present study will be able to assess students' views of different approaches, and will study how learners engage with the different modes to determine a way forward. Furthermore, a new online IT skills course is being developed for this cohort and its usage would be an interesting addition to the project.

We are not aware of any IPR issues associated with this project. In particular, the proposal is from a single institution, and no e-learning material will be developed as part of the project.

The project deliverables (reports and case studies) will be made available to JISC to ensure sustainability. We will also maintain the project website for at least one year after the project ends.

### 3. Key personnel

The majority of the project team have previously worked together on a number of internally-funded e-Learning projects, making for an established and cohesive project team. Two of these recent projects have investigated the use of online resources and learning materials by students. The findings, published and presented at recent conferences (Hardy et al, 2005), have illustrated a multiplicity of patterns of use by students in rich online environments. The current project proposal builds on this work, shifting the focus away from an individual course-centric view of student activity and utilisation, towards one that aims to capture aspects of the whole learning experience, including the role played by technology, during the first year at University.

- **Judy Hardy** is a Project Manager at EPCC, the Edinburgh Parallel Computing Centre. She has an active involvement in a range of e-learning projects; currently this includes an investigation into student use of e-learning resources across a number of mainstream courses. She teaches on a number of courses at both undergraduate and postgraduate level.
- **Jeff Haywood** has worked in the area of e-learning since 1990, taking on three main roles – as an academic; as a project leader; and as a leader of the University of Edinburgh e-learning service (now extended to oversight for integration in the wider area of library, ICT and e-learning support). He has been academic and project leader for 10 major projects funded by the UK Higher Education Funding Councils or the European Commission. All have been successful and have led to a large number of research papers and conference and seminar presentations. In the field of external consultancy he has occasionally worked with other UK universities to help them review and plan their e-learning programmes. A constant theme within his career has been academic staff development, supporting staff to develop critical approaches to the design and delivery of their teaching.
- **Simon Bates** is a Senior Lecturer and Director of Teaching within the School of Physics and is course organiser for a large first-year course in introductory Physics. Previous projects in this area have investigated the utilisation of electronic voting handsets in large class lectures, and the investigation of how students utilise online materials to support their learning in an on-campus environment. He is a member of the Higher Education Academy Physical Sciences Centre advisory committee.
- **Susan Rhind** is a Senior Lecturer in Veterinary Pathology and Director of the Veterinary Teaching Organisation. She is involved in a number of e-learning projects including 'Virtual Veterinary Practice' within the schools VLE, the Edinburgh Electronic Veterinary Curriculum (EEVeC). She is leading a major curriculum review and implementation of a graduate entry programme within the school of veterinary medicine.
- **Jessie Paterson** is the School Computing Officer in the School of Divinity with a particular remit to develop and integrate e-learning into the School's teaching activities. She has been an active member of a number of successful e-learning projects including the use of weblogs in teaching and is a member of the successful team that was awarded "National Award for History Teaching in Higher Education" by the Higher Education Academy in recognition of the innovative e-learning work.

## References

- Conole, G., de Laat, M., Dillon, T. and Darby, J. (2006), JISC LXP 'Student experiences of technologies' Draft final report, [http://www.jisc.ac.uk/elp\\_learneroutcomes.html](http://www.jisc.ac.uk/elp_learneroutcomes.html)
- Hardy, J., Bates, S., Antonioletti, M. and Seed, T. (2005), 'Integrating e-Learning and On-Campus Teaching II: Evaluation of Student Use' in Cook, J. and Whitelock, D. (Eds) 'Exploring the Frontiers of e-learning: borders, outposts and migration', Research Proceedings of the 12th Association of Learning Technology Conference, 140-153
- Hardy, J., Bates, S., McKain, D., Murray, K., Paterson, J., McGonigle, B., Vigentini, L. and Jackson, J. (2006), 'The modus operandi of the next generation e-learner; an analysis of tracking usage across the disciplines', in Whitelock, D and Wheeler, S. (Eds), 'The Next Generation', Research Proceedings of the 13th Association of Learning Technology Conference, 108-120
- Macleod, H. D., Haywood, J., and Anderson, C. (2002). 'Gender & information & communications technology - a 10-year study of new undergraduates.' TechTrends 46, 11-15.
- Mayes, T. (2006), LEX The Learner Experience of e-Learning Methodology Report, [http://www.jisc.ac.uk/elp\\_learneroutcomes.html](http://www.jisc.ac.uk/elp_learneroutcomes.html)
- Nicholson S., Macleod, H. and Haywood, J. (2005), 'E-Learning; Who is leading whom, and where might the road be going?', Human-Computer Interaction International, 2005
- O'Reilly, T. (2005), What Is Web 2.0 Design Patterns and Business Models for the Next Generation of Software, <http://www.oreillynet.com/lpt/a/6228>
- Patton, M. Q. (2001). Qualitative evaluation and research methods (3rd ed.). Sage Publications Ltd.
- Sharpe R., Benfield G., Lessner E. and DeCicco E. (2005), Scoping Study for the Pedagogy strand of the JISC e-Learning Programme, [http://www.jisc.ac.uk/elp\\_learneroutcomes.html](http://www.jisc.ac.uk/elp_learneroutcomes.html)