
THE FOSTERING OF INNOVATIVE ELEARNING STRATEGIES IN EUROPEAN HIGHER EDUCATION

James Aczel, The Open University, UK; Olivier Cotinat, Institut National des Telecommunications, France; Adelaide Franco, Microsoft, Portugal; Pascale Hardy, The Open University, UK; Helen Iggulden, University of Salford, UK; László Komáromi, SZÁMALK Education and Information Technology Ltd., Hungary; Katherine Maillot, Institut National des Telecommunications, France; Sara Medina, Sociedade Portuguesa de Inovação (SPI), Portugal; Andreas Meiszner, SPI, Portugal; Eva Obermueller, Vienna University of Technology, Austria; Franz Reichl, Vienna University of Technology, Austria; Mark Spinoglio, SPI, Portugal; Karen Staniland, University of Salford, UK

Introduction

Although there are strong attempts being made by various European observatories and European Commission programmes to identify and disseminate innovative eLearning practices (MENON, 2006), the factors that determine educational effectiveness are, as yet, not well understood. In particular, while an extraordinarily wide range of university-level eLearning programmes are rapidly becoming available from large numbers of Higher Education Institutions (HEIs) across Europe, the sharing of good practice requires detailed accounts of successful innovative eLearning strategies. There are many relevant checklists and sets of principles described in EU websites (e.g. elearningeurope.info, 2006) and in the academic literature (e.g. Conole et al, 2004), but it is often only through thoroughly appreciating what others have done that such abstract guidance come alive. However, it can still be difficult for HEIs to learn from others. While there are many media reports of innovation, these typically have to omit the level of detail that would enable optimal understanding by those HEIs wishing to apply such innovations in their own contexts. Meanwhile, case studies presented at conferences and in the academic literature can provide the necessary level of detail, but it can be difficult to collate such case studies into a form that facilitates consistent descriptions across the diversity of European HEIs.

By identifying the various eLearning programmes applied by HEIs in a number of EU member states and conducting a detailed assessment of a sample of eLearning strategies found to be effective supporters of higher education requirements, the EC-funded InnoUniLearning project is disseminating a range of eLearning strategy case studies. Where possible this project is estimating the potential impact of the implemented eLearning programmes, but more importantly it will identify and detail the strategies applied by leading institutions and well-known success stories, as well as those institutions that have applied new and innovative eLearning programmes. It is hoped that the dissemination of these case studies will be of assistance to HEIs across Europe in implementing eLearning strategies that meet their own particular curricular and cohort requirements. The study is concentrating on illuminating a range of successful eLearning strategy cases, rather than necessarily determining best practice, which could be argued an impossible task at the moment because of a lack of learner feedback. Nevertheless, most, if not all, organisations that have implemented eLearning have gone through a period of adjustment in order to obtain an eLearning programme that is cost-efficient and effective; so capturing something of the challenges overcome by the HEIs leading this field should assist the wider EU higher education community.

This paper describes background and the methodological approach of the two-year study and some preliminary results, which will be elaborated in the conference presentation.

Phase 1: Identification of HEIs with noteworthy eLearning programmes

Phase 1(a): Comprehensive list of HEIs

The first phase of the study involved project partners representing five member states – France, UK, Hungary, Austria and Portugal – compiling a comprehensive list of HEIs with noteworthy eLearning programmes. The European Commission’s definition of eLearning was adopted: “the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services as well as remote exchanges and collaboration” (EC, 2001).

For some countries there needed to be an element of selectivity. For example, some 95% of the UK's 200 (or so) HEIs are using Virtual Learning Environments (Jenkins, Browne & Walker, 2005), and the government is encouraging even greater eLearning (HEFCE, 2005). More generally, evidence suggests that European universities plan to expand their use of eLearning (BBC News, 2005).

A range of sources were used to compile lists, sources which varied from member state to member state. These sources identified HEIs which...

- have featured in previous surveys or case study collections in the particular member state (e.g. the “Forum neue Medien in der Lehre” in Austria);
- have a national reputation as long-standing eLearning players, or have high profile national media coverage in relation to eLearning;
- were nominated by eLearning practitioners in HEIs already identified;
- offer eLearning courses through well-known international consortia (e.g. the World Universities Network);
- have been referenced in academic literature;
- have featured in leading conferences in relation to eLearning (e.g. ELearnExpo in France; eLes04 in Portugal; Online Educa and EDEN internationally);
- have won awards, accreditation, or government funding for major initiatives that are related in some way to eLearning (e.g. a “Centre of Excellence in Teaching and Learning” in the UK);
- have been involved, either institutionally or through individual staff, in national organisations or projects with some kind of remit to promote eLearning in the higher education sector (e.g. JISC in the UK; or the Portuguese e-U initiative).

Judgements were then made, on the basis of such factors, about which HEIs seemed the most “noteworthy”. These judgements were typically validated by experts in the relevant member state.

Basic data was collected on these HEIs from public websites, including (where available) the nature of the HEI, names of central units involved in eLearning, the range of technological tools and teaching methods used, particular curriculum strengths, and any eLearning initiatives with which the HEI was involved.

This list was reviewed by an Advisory Panel of eLearning experts largely drawn from member states other than those involved in collecting the data. The numbers of HEIs selected for the next phase are shown in Table 1.

Country	n
Austria	13
France	25
Hungary	7
Portugal	11
UK	31
<i>Total</i>	87

Table 1: Numbers of HEIs selected for the next phase

Phase 1(b): Development of review criteria and survey instrument

The next phase of the study developed criteria to identify HEI programmes that represent a range of applied strategies found to be effective supporters of higher education's requirements.

Paulsen (2003) observes that recurring themes in recommendations from European projects about success factors in large-scale online education are related to institutional processes, cost-effectiveness and sustainability, efficient and well-integrated ICT systems, and a focus on pedagogy and online teaching. To elaborate the criteria, a range of academic literature was used, including the review of eLearning by Wentling et al (2000), which emphasised a multi-level approach to evaluation, including organisational aspects and student satisfaction; WCET (2001), which looked at best practices in institutional activity relating to eLearning; Massey (2002), which surveyed 450 eLearning adopters across the EU; Franklin et al (2004), which aimed to identify critical points for evaluating eLearning; Huang et al (2004), which examined what factors an accreditation system for online teaching should take into account; Hodgson (2002), which considered pedagogical practices in EU-funded programmes; and JISC (2005) which summarised a range of projects looking at pedagogy in higher education.

In order to gather data relating to these criteria, a questionnaire was constructed and reviewed by the Advisory Panel. There are five sections in the questionnaire:

“Teachers” asks about the types of training and support available for teaching staff responsible for content development and tutoring.

“Learners” asks about the types of training and support available for learners, in relation to both technology and course content; and the range of services available to learners (online libraries, administration, assessment, accessibility services, and so on).

“Teaching methodology” asks about the technologies and processes used to support learner-to-learner interaction, teacher-to-learner interaction and assessment; and awards that have been won.

“Institution” asks about the numbers of courses that make use of eLearning in varying ways, degree of decentralisation of management of eLearning, and the methods used to determine course success.

“General comments” allows respondents to highlight anything their HEI is doing that is particularly innovative that has not already been documented in the questionnaire.

Phase 1(c): Initial review process – survey data and additional evidence

The questionnaire was translated into the languages of the individual member states, and the HEIs selected to participate in this part of the study were contacted to request their participation in a survey questionnaire. An overall response rate of 74% was achieved; and the responses were subjected to detailed quantitative and qualitative analysis.

Portugal came out particularly strongly overall, with Hungary showing strength in the section on Teachers, and the UK showing strength on the institutional aspects. However, one should be cautious in making country comparisons, not least because of the linguistic differences. It was also clear that the rankings within countries provided some surprises in comparison with the data on noteworthiness gathered in Phase 1(a). Much of this could be attributed to differences between respondents rather than between HEIs. A particular problem of this kind of survey is that in large HEIs in which responsibility for eLearning is decentralised to faculties or departments, there is not always a single individual that can represent the HEI simultaneously in terms of both innovation in particular curriculum areas and in the institution-level infrastructure and processes that support innovative eLearning. Sometimes it proved difficult for HEIs to identify which individuals collectively would be best-placed to complete the questionnaire. Some respondents were also clearly more enthusiastic than others in highlighting their institution's success.

In selecting HEIs to examine in more detail in the second phase of the study, it was therefore decided that in addition to ten HEIs selected purely on the basis of the questionnaire data, a further three institutions per participating member state would be selected (making a total of 25), by means of a process that supplemented the questionnaire with additional qualitative evidence available in the public domain. This evidence built on the data on noteworthiness gathered in Phase 1(a), and so included national awards, participation in major eLearning initiatives, high profile media coverage, and appearance in academic literature. This process also enabled the project to represent a diversity of strategies across the EU, rather than simply selecting those HEIs that scored highest in total. As earlier, the Advisory Panel conducted a review prior to the start of the next phase.

Phase 2: A review of the 25 highlighted HEIs

The 25 HEIs that featured in Phase 2 are shown below.

<p>Portugal Universidade de Aveiro Universidade do Minho Universidade Católica Portuguesa – Instituto de Ensino e Formação a Distância Universidade do Porto</p>	<p>Hungary Dennis Gabor College Eszterházy Károly College Eötvös Lóránt University University of Miskolc Budapest University of Technology and Economics</p>
<p>France ENIC Lille - Ecole Nouvelle d'Ingénieurs en Communication ESSEC - Ecole supérieure des sciences économiques et commerciales IAE Caen - Institut d'Administration des Entreprises de Caen Université Technologique de Troyes Université Lyon 1 Université Lyon 2</p>	<p>UK University of Birmingham University of London External Programme The Open University University of Leeds University of York UHI Millennium Institute University of Ulster</p>
<p>Austria Technische Universität Wien (Ecodesign) Wirtschaftsuniversität Wien (Learn@WU) Johannes-Kepler Universität-Linz (WeLearn)</p>	

A review of each institution was conducted, which included telephone interviews. The schedule for these interviews was based on a benchmarking methodology developed by the United States' Institute for Higher Education Policy (2000), and intended to provide a measure of quality in relation to eLearning. The qualitative data derived from the telephone interviews also supplemented the data obtained from the questionnaires in relation to aspects such as course development processes; the pedagogical guidance and support available to staff; the range of activities the students undertake, the resources available to them, their interactions with tutors and other students, and their assessment; and the use made of data on educational effectiveness, enrolment and costs.

Summaries of the reviews of these 25 highlighted HEIs will shortly be available in a project output: the Noteworthy eLearning Programmes Report. Preliminary findings suggest:

- Blended learning is overwhelmingly the preferred teaching mode.
- A minority of HEIs have written eLearning strategies.
- The most important aspects to interviewees are clearly customer-focused: providing students with timely and constructive feedback on their students' assignments and questions; providing quick and accurate responses to student support requests; and facilitating student interaction with tutors and peers
- Surprisingly that "data on enrolment, costs, and successful/innovative uses of technology are used to evaluate the programme's effectiveness" is seen as one of the least important aspects.

- Several institutions are targeting niche markets, such as international postgraduate professional programmes in particular departments; others are aiming for whole-institution strategies.

Phase 3: A detailed study of eLearning strategies – case study visits

At the time of writing, eight HEIs are being selected to be highlighted as detailed eLearning strategy case studies. Building on the data already collected, Phase 3 will consist of campus visits and interviews with senior management (experts and decision makers), with those involved in originally creating the programmes, and with the teachers and students currently involved in the programmes. Each case study will provide an overview of the institution, its educational structure, curriculum needs, and eLearning strategies.

It will be important to consider the student perspective, and available evidence of educational impact. Clegg et al (2003) argue that uncritical acceptance of pressures to adopt new ICT for education, under the rhetoric of “student-centred learning”, can turn out to have negative consequences for students. It will also be valuable for the European higher education community to learn how these strategies have developed over time.

The format of the case study visits is based on the template developed for JISC in the UK, and the interview schedules attempts to establish stakeholders’ perceptions of quality and factors of success, in relation to aspects such as the environments for learning, pedagogic approaches, course development processes, and quality improvement processes.

Dissemination

The outputs of this project will be made available to the European higher education community through online interactive modules. There will also be four synchronous virtual conferences each highlighting two of the eight detailed case studies.

Through illuminating a range of innovative eLearning strategies from across Europe in this way, it is hoped that HEIs will be able to learn from the experiences of other institutions and that some light will be shed on factors that determine educational effectiveness.

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References

1. BBC NEWS (2005) *Universities ‘expand e-learning’*, <http://news.bbc.co.uk/1/hi/education/4361711.stm>
2. CLEGG, S., HUDSON, A., & STEEL, J. (2003) *The emperor's new clothes: globalisation and e-learning in Higher Education*, *British Journal of Sociology of Education*, 24 (1): 39-53
3. CONOLE, G., DYKE, M., OLIVER, M., SEALE, J. (2004) *Mapping pedagogy and tools for effective learning design*, *Computers & Education*, 43 (1-2): 17-33
4. EC (2001) *eLearning Action Plan*, Communication from the Commission to the Council and the European Parliament, Brussels, 28 March, COM (2001) 172, http://europa.eu.int/eur-lex/en/com/cnc/2001/com2001_0172en01.pdf
5. ELEARNINGEUROPA.INFO (2006) EC eLearning portal, <http://www.elearningeuropa.info>

6. FRANKLIN, T., ARMSTRONG, J., OLWER, M. & PETCH, J. (2004) *Towards an effective framework for the evaluation of e-Learning*, e-Learning Research Centre, UK
7. HEFCE (2005) *Strategy for e-learning*, http://www.hefce.ac.uk/pubs/hefce/2005/05_12/
8. HODGSON, VE. (2002) *The European Union and e-learning: an examination of rhetoric, theory and practice*, *Journal of Computer Assisted Learning*, 18 (3): 240-252
9. HUANG, R., ZHANG, J. & DONG, Y. (2004) *Developing an Accreditation System for On-line Teaching Processes*, Beijing Normal University, www.e-mentor.edu.pl/xml/wydania/6/71.pdf
10. INSTITUTE FOR HIGHER EDUCATION POLICY (2000) *Quality on the Line – Benchmarks for Success in Internet Based Distance Education*, www.ihep.com/Pubs/PDF/Quality.pdf
11. JENKINS, M., BROWNE, T. & WALKER, R. (2005) *VLE Surveys: A longitudinal perspective between March 2001, March 2003 and March 2005 for higher education in the United Kingdom*, UCISA
12. JISC (2005) *Designing for Learning: An update on the Pedagogy strand of the JISC eLearning Programme*, http://www.jisc.ac.uk/index.cfm?name=elearning_pedagogy
13. MASSEY, J. (2002) *Quality and e-learning in European training*, e.learning age
14. MENON (2006) *MENON Network European Economic Interest Group (EEIG)*, www.menon.org
15. PAULSEN, M. F. (2003) *Online Education and Learning Management Systems: Global E-learning in a Scandinavian Perspective*, Bekkestua: NKI Forlaget
16. WCET (2001) *Best Practices for Electronically Offered Degree and Certificate Programs*, Western Cooperative for Educational Telecommunications, <http://www.wcet.info/resources/accreditation/>
17. WENTLING, T. L., WAIGHT, C., GALLAHER, J., LA FLEUR, J., WANG, C. & KANFER, A. (2000) *e-learning - A Review of Literature*, Knowledge and Learning Systems Group, NCSA, University of Illinois, <http://learning.ncsa.uiuc.edu/papers/elearnlit.pdf>