

# Supporting Design for Learning: A (UK) case study of the JISC funded programme

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This paper will provide a summary of the current effort in the United Kingdom (UK), through the Joint Information Systems Committee (JISC) funded Design for Learning Programme, to synthesise the approaches of e-Learning developers providing systems, services and associated tools, with e-learning researchers studying how these are employed to support effective teaching and learning.

One of the principal objectives of the programme is to bring these areas of work together in funded projects where both conceptual and systems development are closely allied with each other. An overview of the programme is given, plus details of the ongoing provision of support for the projects involved. Various approaches are employed by projects; such as conceptual tools under development, toolkits, reference models, pedagogic planners and paper prototypes. The 'Designs for Learning' outputs of the programme may be in the form of IMS Learning Design activity structures, Learning Activity Management (LAMS) sequences or indeed other forms of representation. It promises to highlight some innovative and challenging work and pose critical questions for the future of learning design.

Keywords: Design for Learning, JISC CETIS, Pedagogy, IMS Learning Design, LAMS

## Context

The JISC (established in 1993) works with UK Further and Higher Education (FE and HE) by providing strategic guidance, advice and opportunities to use ICT to support teaching, learning, research and administration. Funded by UK Further and Higher Education funding councils, JISC provides a centralised and co-ordinated direction for the development of the infrastructure and activities offering:

- New environments for learning, teaching and research;
- Access to electronic resources;
- A world-class network – JANET;
- Guidance on institutional change;
- Advisory and consultancy services;
- Regional support for FE colleges.

Whilst there is an obvious focus on the technical aspects of development and implementation, the critical 'softer' issues are also acknowledged:

There is a need to get a balance between developing technology and demonstrating it in the community, and then providing help in terms of skills development, culture change and helping institutions and practitioners to look at the potential.

(Tish Roberts, Director of the e-Learning Programme,  
<http://www.elearning.ac.uk/features/interviewtr> )

## **e-Learning Programme**

The current JISC e-Learning Programme (2003- 2009) has the key aim of identifying how e-learning can facilitate learning and advise on its implementation. There are four main areas of work, reflected in four strands: e-Learning and Pedagogy, Frameworks and Tools, Distributed e-Learning, and Innovations. The strand with which this paper is concerned with is e-Learning and Pedagogy ([http://www.jisc.ac.uk/elearning\\_pedagogy.html](http://www.jisc.ac.uk/elearning_pedagogy.html)), in particular the Design for Learning programme, which commenced May 2006 ([http://www.jisc.ac.uk/index.cfm?name=elp\\_designlearn](http://www.jisc.ac.uk/index.cfm?name=elp_designlearn)) The pedagogy strand of the eLearning Programme has as its core aims:

- to provide the post-16 and HE community with accurate, up-to-date, evidence- and research-based information about effective practice in the use of e-learning tools;
- to promote the application and development of e-learning tools and standards to better support effective practice.

## **Design for Learning**

e-Learning and Pedagogy activities to date are broadly grouped under two themes, 'Designing for Learning' (with a practitioner planning focus on e-learning) and 'Understanding my Learning', (with a learner reflection focus on e-learning.) The broader title 'Design for Learning' allows the programme to encompass a wide area of interest and brings together the technological and pedagogical aspects of the field. Several projects are funded by the programme and build upon international work such as LAMS and also the IMS Learning Design specification. Alongside the technical developments, there are projects investigating the pedagogical planning aspects. The benefit of such a variety of activity being funded under the same programme is the bringing together of such work to enable sharing of outputs and a more cohesive way of working together.

The current work builds on the existing projects funded under the Designing for Learning theme of the Pedagogy strand. The aims of the projects are to:

- Support practitioners in the process of designing, planning and orchestrating learning activities ('design for learning') in a range of learning programmes and contexts across UK FE and HE;
- Ensure that the process of design for learning is based on sound pedagogic principles, is evidence-based and learner-centred;
- Promote the development and implementation of tools and standards to support the process of design for learning;
- Promote the sharing of expertise in design for learning, for example through sharing and re-use of effective pedagogic designs;
- Support the establishment of communities, services and resources to promote and sustain effective practice in design for learning.

Previous studies (Beetham, 2005) have highlighted problems translating between research projects, developer requirements, and real examples of practice. It is critical to ensure that the conceptual and practical implementation of 'design for learning' is informed by what is known about effective pedagogic practice. This new programme attempts to address such issues by bringing together those working on the specification and sequencing of learning activities within a web services environment together with those

interested in identifying and supporting effective practice in the design, orchestration and delivery of learning activities. Thus the programme has funded various projects detailed below:

- Models of practice project;
- Pedagogic planner projects;
- Implementing and evaluation learning design tools;
- Technical development projects;
- Support project;
- Evaluation project.

#### *Models of practice*

The primary outcome of this project is to develop a practitioner-focused resource describing a range of exemplary practice models of learning activities with technology and indicating how these may be applied in practice.

#### *Online pedagogic planners*

The primary outcome of these projects is to develop an online practitioner-focused planning tool for designing effective learning activities with technology, available for piloting and/or further development as recommended by the final report.

#### *Implementing and evaluating learning design tools & technical development projects*

These projects will explore the integration, implementation and support in a specific learning and teaching context, of one or more learning design tools. The key deliverables from these projects will be the sharing of exemplar learning designs and case studies detailing how the tools have been used in specific contexts together with recommendations for effective embedding and use of similar tools in design for learning.

#### *Support project*

The support project will underpin the design for learning projects and play a key role in linking together the projects and sharing key outcomes. The key deliverable of the support project will be to develop an accessible resource or gateway to learning designs for use by the projects and by users of the project outcomes.

#### *Evaluation project*

The aim of this project is to evaluate the Design for Learning Programme and provide a synthesis and summary of the lessons learned, to aid JISC and the wider community in understanding the emerging lessons and recommend ways of applying and building upon them.

## **Learning design**

The field of learning design has emerged in recent years as a distinct offshoot of instructional design, with its own paradigms and protocols (Koper & Tattersall, 2005). Chief among these is a focus on learner activity, rather than on content or the purely administrative aspects of pedagogic support. IMS Learning Design is an interoperability specification that provides formal XML expression for the design of learning activities, so that they may be delivered and shared across a range of platforms. The strength of this specification is that, in contrast to the didactic pedagogical model implied by current learning management systems (LMSs), it can be used to describe and deliver a wide range of pedagogies, including group work, problem-based learning and so on. The recent developments offer more opportunities for describing learning activities and interactions within computer-based systems which to date have not been widely available in a form usable by practitioners (Britain, 2004). Since its publication, the IMS Learning Design specification has generated much interest from researchers and practitioners, who otherwise may not have been involved in technical developments (see UNFOLD project: <http://www.unfold-project.net:8085/UNFOLD>) The dialogue that has ensued has also included those who are not working with the IMS specification but are concerned with learning design in its broadest sense, which has naturally added great depth to the discussions: the Design for Learning programme encompasses both these approaches (IMS and non-IMS Learning Design) in order to capture the widest level of activity.

## Supporting the programme

CETIS' background in programme and project support along with its leading role in the development and promotion of IMS Learning Design is drawn upon to support the JISC Design for Learning programme. The key aims of the CETIS support project are:

- Providing technical and pedagogic expertise in learning design to the projects and the programme to support the process of design for learning;
- Enabling the sharing of expertise in design for learning, for example through sharing and re-use of effective pedagogic learning designs, use models or exemplars;
- Supporting the establishment of communities, services and resources to promote and sustain effective practice in design for learning.

CETIS concurrently supports a number of other JISC Programmes and as such will coordinate relevant findings from these, assisting in the synergy of the various JISC initiatives. By embedding the support post within the larger CETIS community wider pedagogic and technical expertise will be made available to the programme.

The programme is primarily supported through the use of a wiki, an innovative approach utilising new technologies which has proved successful in supporting other JISC programmes. This is intended to bring all the projects into one area containing programme information and support. Each project has a dedicated page, which they can amend and update accordingly. The wiki also features a forum, in which discussions and debates about issues that arise can be held. The Programme is also supported by individual project visits and several focussed events aimed at sharing outcomes and are planned to meet both the needs of the technical projects and those with a more pedagogical slant.

International interest in the sharing, reuse and repurposing of learning designs has brought with it an increasing interest from educational developers and teachers in describing and sharing information about the sequencing of learning (and learning objects), the educational context within which they are used, and the educational purpose that they fulfil. Expectations of what metadata standards and vocabularies can provide in support of these emergent needs has somewhat out-stripped what existing standards currently support, although work is under way to address this (see Currier, 2005). The Support Project will draw upon this work and other relevant efforts, plus bring together key stakeholders in the area in order to advance the scope of the project outputs. One key deliverable of the programme is the ability to share learning designs (not just IMS compliant designs, they may be a word documents, LAMS designs, etc). Thus in order to be effective across the wider educational community, stakeholder involvement (such as LAMS, OUNL, JORUM) is critical for success.

## Conclusion

The work within the programme builds on previous JISC programmes and provides an ideal opportunity to synthesise the pedagogical and technical/implementation aspects of e-learning, a factor which to date has been limited. As previously highlighted, it is important to bring together such activities in order to share knowledge and developments in this area, both within the programme and wider educational community. It should prove interesting to track the success of such an approach which will inevitably pose a series of questions relating to the potential of sharing 'designs for learning' across different contexts.

It is envisaged that there will be many interesting challenges during the course of the programme, which undoubtedly will further the area of learning design and its applicability to education on a national and international level.

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