Transforming Curriculum Delivery through Technology Programme

JISC

Project Document Cover Sheet

Project Information			
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Project Title	Achieving transformation, enhanced learning and innovation through educational resources in design		
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Partner Institutions	n/a		
Project Web URL	Project website: http://design.open.ac.uk/atelier-d.htm Project blog: http://designthinking.typepad.com/atelierd/about-atelierd.html		
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Project Name	***ATELIER-D, The Open University***
Report compiled by	*Steve Garner*
With contributions from	*Georgina Holden, Theo Zamenopoulos, Giselle Ferreira, Nicole Schadewitz, Peter Lloyd, Emma Dewberry and Jennefer Hart*
Reporting period	Project start (1st November 08) to 31 August 2009

Section One: Summary

Provide an overview of the project to date, highlighting key developments, deliverables/outputs and achievements for the reporting period. This section may be used to inform the Programme and Support team, and may also provide the basis for an update to inform the sector about the project.

This report details activities in Year 1 of the two-year Atelier-D project. The work has followed the plan submitted in March 2009. Five of the six Course Delivery Innovations (CDIs) have been started: four have been completed, one is in progress and one has been postponed for two months due to delays in the construction of a prototype online design studio. The other five CDIs have engaged groups of Open University students and each one has been led by an academic member of staff. Work is on track to create Programme Delivery Innovations (PDIs) for Year 2 of the project.

The Atelier-D project seeks to explore new models of flexible distance learning but which takes its cues from the centuries old model of the atelier style of teaching and learning. It seeks to exploit new technologies to enhance reflective and self-aware learning.

The project forms part of the CAMEL cluster with the universities of Leicester, Middlesex and Oxford. One cluster meeting has been organised and hosted by Atelier-D at the Open University and one other cluster meeting (Leicester) attended. Also there has been one meeting of the project Steering Committee. Monthly project meetings have been held. Representatives of Atelier-D have attended several JISC events in this reporting period (listed below) and maintained regular contact with the project Critical Friend (Peter Chatterton).

There are several outputs from year 1 including presentations at conferences.

A new Research Assistant (Jennefer Hart) began on 14.9.09 to replace Theodore Zamenopoulos who was appointed to an academic post at the Open University in June 2009. Theo maintains an academic role in the project.

Section Two: Activities and Progress

Report on activities in support of project objectives for the reporting period.

Project outline

Atelier-D engages seven academic staff plus one research assistant. It seeks to construct a virtual atelier that combines well-established practice in art and design education with new opportunities presented by ICT to create a powerful new approach to learning and teaching design. It is founded on the delivery of three core Open University design courses (at Levels 1, 2 and 3) and their integration in a new design programme. The project builds on existing infrastructure including OpenLearn, the Open University's open content initiative plus other elements of the VLE and Web 2.0 tools. Year 1 has involved the establishment and conduct of six curriculum delivery innovations (CDIs). These are:

CDI 1 Social networking of design learners (led by Nicole Schadewitz)

CDI 2 Mapping of design thinking and practice (led by Giselle Ferreira)

CDI 3 Conferencing to support collaborative group work (led by Georgina Holden

CDI 4 Collaborative design in *SecondLife* (led by Steve Garner)

CDI 5 Peer assessment in design (led by Theodore Zamenopoulos)

CDI 6 Using an online design studio environment (led by Peter Lloyd)

Year 1 forms the foundation on which is built three programme delivery Innovations (PDIs) in Year 2.

Report on project workpackages

Workpackage 1: Plan CDIs

All six CDIs were planned in detail for delivery between March 2009 and October 2009.

Workpackage 2: Create and maintain website and blog

Project website and blog was established in February 2009. These have been maintained by the RA.

Project website: http://design.open.ac.uk/atelier-d.htm

Project blog: http://designthinking.typepad.com/atelierd/about-atelierd.html

The project website is the public face of the project. It provides contact information, details of the CDIs and a summary of key findings. The project blog presents a working archive of discussions, information on CDIs, disseminates JISC information and links and acts as a resource hub for the project.

Workpackage 3: Capture of baseline data of pre-project curriculum delivery

This is presented in Section 4.

Workpackage 4: Run CDIs

A short summary explaining the conduct of each CDI is given here. Results, feedback and early conclusions are presented under Workpackage 6.

CDI 1: Social networking of design learners (*led by Nicole Schadewitz with support from Theo Zamenopoulos)*

In this CDI, we examined the use of *Facebook* (www.facebook.com) by Open University, Level 2, part-time distance design students over a period of 5 months. They were drawn from the course *Design and Designing* (T211). The CDI was organised in two stages. In stage one, following an open call for participation, thirteen students were invited to participate in a four-week 'guided study' using *Facebook*. The two researchers who set up the *Facebook* group did not tutor students. They initiated extra-curricula activities that sought to consolidate learning from the course materials such as readings and exercises. Most participants in this study were already members of *Facebook*.

Facebook offers several functionalities, such as forum discussions, wall posts, video or link posts, and picture upload and commenting. Several tasks, such as ice breaking exercises, topical discussions, and posting of pictures of design outputs such as models were initiated either by the researchers and by

students themselves within the group. In the second stage we simply observed how the original group of students, as well as others who joined later, appropriated the *Facebook* group on their own, without the participation of the researchers.

For the *Facebook* study we collected two types of data. The first set of data was generated from a questionnaire that was sent to the participants after the first four weeks of guided study. The questionnaire contained 7 open-ended questions soliciting students' views and experience about the role and potential value of the created *Facebook* group. The second set of data came from the postings and discussions on the group Wall, the group forums and the students' personal Wall.

CDI 2: Mapping of design thinking and practice *(led by Giselle Ferreira with support from Theo Zamenopoulos and Georgy Holden)*

Design education requires a type of learning landscape that supports learners' in effectively exploring and synthesising diverse types of information. Distance design education, in particular, requires a platform for learning support that allows learners to map their ideas, research, thoughts and designs whilst enabling them to make connections between these diverse elements of design thinking. The aim of this CDI has been to investigate the potential of *Compendium* (http://compendium.open.ac.uk/software.html), a freely-available knowledge-mapping tool developed at the Open University's Knowledge Media Institute, to provide such a platform. The CDI has provided a context to test the applicability and effectiveness of *Compendium* in delivering an interactive, reflexive and systemic learning context to support the development of autonomous design learners.

The CDI was run within the context of the OU course *Innovation: Designing for a Sustainable Future* (T307). This is a Level 3 course structured around various aspects of innovation. The course includes 5 pieces of summative assessment which contribute to the final, examinable component that takes the form of a project report. This CDI integrated the use of *Compendium* into the first assignment, which requires, amongst other tasks preliminary to the project work, that students carry out a strategic review of an area of their choice. Whilst the course materials leave it to students to choose which methods and tools they may wish to use to carry out and articulate their review, volunteers in the trial agreed to explore the potential of *Compendium* for these purposes.

CDI 3: Conferencing to support collaborative group work (lead by Georgina Holden with support from Theo Zamenopoulos)

The work for this CDI was carried out in July 2009 with volunteers drawn from the Level 3 course *Innovation: designing for a sustainable future* (T307). Students were invited to join *Elluminate* (www.elluminate.com) tutorials led by Georgy Holden as Course Chair. Two sessions were held and preliminary feedback from students was encouraging. The sessions were focused on up-coming assessment work including the interim stages of a design project. Several of the features of *Elluminate* were utilised, but the main focus was on the audio conferencing, text chat, shared presentations and file sharing. In addition to this exploration of the possibilities of *Elluminate*, the software has been used throughout this year by Barbara Jones, an associate lecturer on T307 and a member of the AtelierD steering group. A full evaluation of the student experience will be conducted in October when the final piece of assessment work is handed in.

CDI 4: Collaborative design in *Second Life* *(led by Steve Garner with support from Theo Zamenopoulos)*

This CDI involved five one-hour studies of collaborative design in *SecondLife*, the virtual online world (www.secondlife.com). These sessions took place on five evenings between 1st and 8th July 2009. Participants were recruited during June from the Open University's Level 2 course *Design and Designing* (T211). Participant numbers varied between 5 and 8 over the five sessions.

The first two sessions were intended as familiarisation in the *SecondLife* environment (e.g. flying, communicating, teleporting), but also included some simple individual and shared design tasks. The following three sessions involved participants in increasingly complex situations for online collaborative working. Each session was guided by a design brief circulated shortly before each session began. The project has created a photo record of the outputs plus some short video sequences of group design work. At the end of the sessions participants were asked to complete a questionnaire on their experience.

CDI 5: Peer assessment in design *(led by Theo Zamenopoulos)*

This CDI explored the feasibility and implications of using web2.0 technologies for the purpose of supporting the active participation of students in the assessment of their projects. The CDI focused on two modes of student assessment: peer assessment and co-assessment.

Peer assessment alludes to a process where students give feedback or evaluate their peers; and co-assessment refers to a process where students participate in the evaluation process together with their tutors. In the traditional design studio, these two modes of assessment are an integral part of the learning experience. It is believed that they are vital for design students, helping them to develop their confidence in defending ideas, raise their self-awareness and developing a critical understanding of what makes a good design proposal.

Web2.0 technologies present an important opportunity for augmenting the benefits of peer and co-assessment process in the context of both distance and face-to-face education. They can be used to incrementally build educational resources that can be revisited by tutors and students throughout their study. For the purpose of this study, *Flickr* (flickr.com) was identified as a possible platform. It is a widespread web2.0 platform for sharing and organizing pictures, videos and comments and is ideal for accommodating the visual character of design studio exchanges. A private *Flickr* group was created for Level 2 and Level 3 design students who participated in this CDI. The participants focused on the evaluation of their final projects.

CDI 6: Using an online design studio environment (lead by Peter Lloyd with support from Theo Zamenopoulos)

The delivery of this CDI has been delayed because of the late development of *OpenDesignStudio*, an application being developed by the Open University's Learning and Teaching Solutions Unit. A functioning version of *OpenDesignStudio* was originally planned to be completed in June 2009, but additional software complexity has meant that a test version will not now be available until the beginning of November 2009.

The revised plan is now to recruit 25 participants, from current undergraduate design courses, to complete two short activities that involve (1) uploading images to OpenDesignStudio and (2) commenting on other people's images. The CDI will deliver an evaluation of the design work produced, along with participant feedback about the usability and effectiveness of OpenDesignStudio. The timeplan reveals that CDI 6 will still inform the creation of the PDIs taking place in 2010.

Timeplan

2nd November	Test version of OpenDesignStudio completed
2nd November	Recruitment of participants begins
16th – 23rd November	Participants complete task
30th November	Write-up of results

Workpackage 5: Project Management (Year 1 Activities)

Each CDI was developed and presented by one lead academic with support from other project members. Each lead academic was responsible for developing the CDI content and the timescale of the study, for recruiting participants, rolling out the CDI to students, defining the required outputs and leading the analysis of the data generated. Therefore each CDI has its own internal management structure. The group of six CDIs was coordinated by the Programme Manager and Programme Director supported by the RA. This management group reported to the Steering Committee which included of the Dean of the Faculty of Maths Computing and Technology plus three external senior academics from other universities.

Each CDI involved a number of volunteer students drawn from the OU Level 2 design course (*T211: Design for Designing)* and/or the Level 3 design course (*T307: Innovation: Designing for a Sustainable Future*). The research studies used a combination of structured tutor-directed sessions along with unstructured self-directed sessions, depending on the research objectives and technology employed. Data was collected by observation, questionnaires, forum postings, photo outputs and video clips of group work.

Workpackage 6: Evaluation of CDI

The CDIs have just been completed. Evaluations of the outputs from CDIs is ongoing. A summary of initial evaluations is presented below.

CDI 1: Social networking of design learners (*led by Nicole Schadewitz with support from Theo Zamenopoulos)*

Facebook seems to be able to offer enculturation into the world of design and also supports course–focused and artifact-centred discourse in design. More specifically, the main role of the created *Facebook* group for distance design learning was in constructing an ambient awareness, where students know what others are feeling, thinking and doing locally. This awareness can be created through interactions focused around the course context and content.

Facebook supported two main learner identities, the 'Context Oriented Socialiser' and the 'Content Focused Learner'. The Socialiser mainly posts course contextual information on the personal wall and in this way builds tight-knit companionship communities with other students in the same course. The Socialiser occasionally also interacts in the course specific group space. Some Socialisers can become more engaged with the group space if the discussions evolve around locally produced design artefacts, which are more likely to be initiated by Focused Learners. Focussed Learners are inactive on the personal wall and also less connected to other students socially outside the group space. However, they do form a clear social network within the group space. Focused learners contribute information about the content and the context of the course. They also take on facilitator roles when they try to move a discussion from context to content focused contributions. We found that within the group space, Focused Learners and Socialisers built a community of interest.

CDI 2: Mapping of design thinking and practice *(led by Giselle Ferreira with support from Theo Zamenopoulos and Georgy Holden)*

Twenty-five volunteers signed up for the trial, and feedback was provided by fifteen individuals, some of which chose, after some initial experimentation, not to use the software tool. Predominantly this was justified on the basis of familiarity, that is, that they were already users of another mind-mapping tool. In contrast with these previously-known tools (some of which are Web 2.0 tools), students reported having found *Compendium* a tool that has a 'steep learning curve'. Feedback also suggests that students tended to focus more on operational issues related to the software rather than on the actual design task at hand. The maps shared with the researchers did not fully exploit the features available in the tool. Overall, it was felt that *Compendium* uses rather specific language to describe its features, and this makes initial familiarization a less intuitive process. Whilst a more thorough analysis of the feedback obtained in this CDI is underway and a detailed report is in preparation, this feedback and issues raised have already been reported back to the team developing an adapted version of the tool that will be deployed in the new Level 1 design course Design Thinking (U101) and used in the second year of the project.

CDI 3: Conferencing to support collaborative group work (lead by Georgina Holden with support from Theo Zamenopoulos)

Evaluation of this CDI has yet to be completed but the following preliminary observations have been made.

Positive Benefits:

- Remote conferencing can work well for tutor led discussion
- Video may be useful but illustration plus audio can work well too
- The student's ability to share images and applications allows personalised and directed attention from tutor or peers

Potential Problems:

- Synchronous distance group work is hard to organise
- Effective small group work in breakout rooms needs 6+ students
- Not all students have microphones or, importantly, a suitable environment in which to use one
- Text chat facility can be useful but not all facilitators find it easy to follow and deliver a presentation, at its worse text chat can undermine a presentation

CDI 4: Collaborative design in *Second Life* *(led by Steve Garner with support from Theo Zamenopoulos)*

The immersive world of *Second Life (SL)* takes time to adjust to. Shared object building in a virtual world is conceptually different to that in face-to-face working in a real world space. Similarly teleporting and flying provides both distractions and opportunities. Public access to the work area ('sandpit') did not give rise to problems in this study but it was helpful to have the use of one of the Open University's private 'sandbox' areas for private and collaborative object building. Using this the group could guarantee an uninterrupted session.

It was initially hoped that text chat might adequately support the collaborative tasks but it became clear from Session 1 that the ability for participants to use voice was essential. Partly this supported problem solving and partly is facilitated better collaborative designing. A key finding of the CDI is that participants felt they didn't maximise their contribution in the collaborative design sessions because they didn't have sufficient knowledge of how to control their avatar. While the tutorials are very useful it was found that beginners to SL required all of the first two sessions to acquire and practice basic skills and knowledge.

Mixed ability groups are useful in that expert users can assist beginners but the group design progression is consequently slower. Any use of SL as part of a proposed online atelier must include a generous period of familiarisation.

There needs to be a clear inducement to collaboration – at times the participants worked collectively but as individuals with little communication towards shared understandings. It seems important to build-in time for participants to get to know each other (e.g. a group ride on a 'magic carpet' was successful for this because the focus was on socialising not on controlling your avatar). SL is ideal for constructing temporary working environments. It offers a fast and effective means of recreating a studio-like space proving defined spaces for private work, collaborative work and exhibition.

CDI 5: Peer assessment in design *(led by Theo Zamenopoulos)*

This CDI started in mid August 2009. This period covered the last month of preparation before the submission of the final design projects of Level 2 and Level 3 students (the cut-off dates for both courses are in the last week of September). For the purpose of this experimental study, a *Flickr* group page was created initially containing only a sample sequence of postings illustrating the peer assessment process and some general instructions. The students were asked to join the group, post pictures and short descriptions of their projects but also to provide feedback to at least one fellow student. Moreover each member of this group (student or tutor) was invited to take part in the peer review process by adopting different roles inspired by Edward de Bono's 'six thinking hats'. There was an expression of interest from 12 students (ten from Level 3 and two from Level 2) and five tutors. At the end of the CDI the group consisted of seven registered students, two tutors and three members of the course team.

Although not all of the students have posted their projects yet, there is a small number of pictures, a video and a good number of comments posted between students and tutors. At the end of this process we will be seeking some general feedback from students and tutors regarding their experience by using short questionnaires. These may be used to solicit comments about the disadvantages and benefits of the peer assessment process and the *Flickr* interface, explore elements of difficulty, confusion or fun, and discover whether and how this study may have helped students develop different skills and abilities (e.g. confidence, self-awareness, ability to present and defend their work etc). We may also look at the properties of the social network that was created (similar to the *Facebook* experiment) particularly by focusing on student attitudes and roles, aiming to understand how the structure of interactions and role taking may affect the learning experience.

It's possible to offer some general conclusions at this stage. First, it seems that students find it difficult to master the complexity of technologies such as *Flickr*. There might be a need for using a simpler interface or for longer training/familiarisation with the functionalities of the platform. Second, based on the initial communication with students and tutors, it seems that both are attracted to the study because of the opportunity of peer and co-assessment process and its benefits to learning. Their interest to participate was not motivated by their interest to use a technology (join a *Flickr* group). Third, there are students that seem to take a role of 'catalyst' in the creation of threads of comments by trying to 'open a discussion' rather than just provide an evaluation. Fourth, the accumulation of comments and pictures has the potential for creating an important resource for future students.

Workpackage 7: Planning for Programme Delivery Innovations (PDIs) (Year 2)

Year 2 of Atelier-D focuses on Programme Delivery Innovations (PDIs). These seek to develop and apply the findings generated in the CDIs which were by definition 'course' centred. The aim of Year 2 is to create a better design programme through the application of findings from selected CDIs. By better we mean a programme that matches the University's strategic goals and offers a superior student experience in learning and related social interactions.

The original proposal outlined three PDIs during the second year of the project. The studies of these PDIs will have to take place during the academic year of the Open University, that is, between February and October 2010.

Currently the project team are defining these PDIs to exploit the findings from the CDIs conducted in Year 1. It seems sensible to build all three PDIs around the Level 1 course Design Thinking (U101) because this represents the Open University's new model for distance design education students.

The latest thinking suggests the three PDIs will be:

1. Partly an integration of CDIs 2, 3 and 6 to explore the ways *Open Design Studio* combined with *Compendium* knowledge mapping software and *Elluminate* supports teaching and learning of the design curriculum.

2. A PDI focusing on mentoring of novice students by more experienced students. This is something the Open University seeks to improve and, more generally, it's an issue in new models of e-Learning. This PDI might involve the findings from CDI 1 which exploited *Facebook*, and it might draw on CDI 5 on peer assessment. One difficulty unique to the Open University is that students can take courses out of sequence if they wish. So it's possible that a student studying a Level 1 course might be more experienced than a student studying at Level 2. In the same way a Level 3 student is not necessarily the most appropriate person to mentor a Level 2 student. However, it might still be possible to create a mentoring framework for the Level 1 students.

3. The team are currently exploring the creation and use of online design portfolios. This is closely related to CDI 6 which is exploring the use of *Open Design Studio*, a purpose built environment for sharing and discussing work in progress and final outputs.

The planning document shows that the planning of the PDIs will be complete by the end of December 2009 and they will begin from February 2010.

Workpackage 8: Dissemination (Year 1 Activities)

See Section 5.

Section Three: Outputs and Deliverables

What outputs are you expecting to arise from the project? Specify the audiences your expected outputs will be for.

Type of output	**Details** *(themes, topic size, scope)*	**Proposed Audience** (who will use it and why)
Knowledge of the potential for commercial and in-house software to support teaching and learning in design	Reports on the six CDIs (Year 1) and three PDIs (Year 2). Knowledge also disseminated via workshops, conference papers etc	OU Students (via student magazine) OU Staff (Central academics tutors, senior managers) Other HEI institutions (via web, workshops, Steering group)
New software such as the Virtual Design Studio	An online environment for collaborative design. This will become embedded in the OU's Design programme.	Students on Level 1 Design Thinking. OU academics, tutors, senior managers and key operational staff.
Report on impact of PDIs to the Open University and the opportunity for knowledge transfer – particularly other HEI offering design education	Presentation of how Atelier-D has informed design curriculum delivery at the OU. Guidance materials on applying and combining tools in e-Learning.	Other universities involved in teaching and learning of design at undergraduate level.
A library of illustrations drawn from the CDIs and PDIs,	e.g. video, screen shots, learner-created content.	Design academics, educational researchers, education managers, JISC
Qualitative and quantitative data generated by the analysis of the outputs of the CDIs and PDIs.	e.g. statistical data, survey returns, transcripts, video analysis sheets, case study notes and other qualitative data.	Design academics, educational researchers, education managers, JISC
Atelier Website and Blog	Website: the public face of Atelier-D outlining the project, its outcomes and future potential Blog: an information hub for project members, e.g. news and links.	Public, other HEIs. Internal staff, Steering committee, JISC.

Section Four: Outcomes and Lessons Learned

What key messages have arisen from your baselining process that might be of interest to the wider sector? Please tell us:

- *What you now consider to be the key problem(s) or challenge(s) in curriculum delivery within your department(s) / institution?*

  One of the Open University's key challenges is scalability. With course populations of 500+ per module any curriculum delivery innovations that are implemented must be robust and scalable in both technical and pedagogical terms. Solutions which meet these criteria should be of wide interest to the HE sector.

  Another challenge for the University is one of retention. 33% of students who pass their first year course do not go on to further study with this institution. The Open University's student surveys shows that although a high percentage of students (90%) are satisfied with their experience of the university, the main reasons for dissatisfaction are tutorials (21%) and study time (17%). Solutions that transform curriculum delivery and also build communities of learners should have a positive impact on these aspects of study.

- *How your project will enhance curriculum delivery and/or address the problem(s) within your department(s) / institution in light of your baseline activities?*

  The Atelier-D project work is addressing these issues by testing and evaluating scalable solutions aimed at improving the student's online learning experience and using the affordances of Web2.0 to develop a network of distance learners.

- *What measures you will use to assess the impact of enhanced curriculum delivery on the range of stakeholders in your department(s) / institution, and what sources of data will be used to evidence the changes? What evidence have you collected so far?*

  Quantitative student surveys are regularly carried out by the University's student survey office and the results are available to the Atelier-D project. These surveys are being used to support and underpin the qualitative evaluations being carried out by the project team. The main measures will be the rate of retention and progression on identified courses, student satisfaction and attainment.

Outline any emerging outcomes or lessons that have been learned during this reporting period that could be passed on to other projects

The emerging lessons resulting from the CDIs are outlined in Section 2.

Section Five: Communications and Dissemination Activities

Presentations at conferences / workshops

28.4.09 Presentation on Atelier-D at OU e-Learning community workshop (SG & TZ).

16.7.09 Open University meeting to explore use of *Compendium* for supporting teaching and learning (SG TZ).

1-2.9.09 Designs on e-Learning (GH, TZ, NS). Video presentation and forum discussion.

Publications

Holden. G, Ferreira, G., & Zamenopoulos, T. (2009) 'Web2 and beyond: creating community and learning through engagement', Workshop run at 'Making Connections', as part of *Exploring Scholarship for the Digital Age,* Open University, June.

Holden, G, Zamenopoulos, T., & Schadewitz, N. (2009) 'Creating an online design atelier', *Design on eLearning Conferences, DeL Online 2009,* Learning & Teaching with Technology in Art, Design & Communication
http://www.designsonelearning.net/conferences/online/sept2009_online/presenters/georgina_holden.htm

Ferreira, G, Fisher, W., Rosewell, J., Kear, K (2009) 'Exploring Web 2.0 to Support Online Learning Communities: Where Technology Meets Pedagogy'. Workshop run with 28 participants at the *ICL 2009* Conference, Villach, Austria (September).
http://www.icl-conference.org/ws04.htm (Ferreira & Kear virtual presence: FlashMeeting and blogging/synchronous text chat on ning). Overview of project presented over FlashMeeting; slides available at http://www.slideshare.net/J.P.Rosewell/exploring-web-20-to-support-online-learning-communities-where-technology-meets-pedagogy

Holden, G, (2009), Design at a Distance, *EPDE 09, The 11th International Conference on Engineering and Product Design Education,* University of Brighton, 10th – 11th September.

Schadewitz, N. (2009), Towards an online design studio: A study of social networking in design distance learning, *IASDR 09*, Seoul, October 09. (accepted for presentation and publication).

Other

Project members produced chapter proposals for the book: Mor, Y., Warburton, S., and Winters, N. (Eds). (2009), *Practical design patterns for teaching and learning with technology*, Sense Publisher's 'Technology Enhanced Learning' series, Series editors, Noss, R., and Sharples, M. http://www.practicalpatternsbook.org/ . The chapters draw on experiences from the Atelier-D studies (awaiting feedback). This book project stems from an earlier JISC project.

Project members met with Gavin Melles from Swinburne University of Technology in Australia (3.3.09). The possibility of Atelier-D involvement in a grant application in Australia was discussed. The ALTC grants and awards application was not successful this year, but we go into the second round next year.

Also project members met with Prof Chris Rust from Sheffield Hallam University to discuss the Atelier D project and possible collaboration.

Section Six: Evaluation

Provide brief details of progress to date in terms of the development and implementation of the project evaluation plan, including what you feel has worked, what has not, and any aspects you have changed.

An evaluation of the CDIs is given under 'Workpackage 8' above. This section focuses on evaluation plan which identified specific questions, methods and measures of success for each of the six CDIs. A reflection on what has and has not worked is given here:

CDI 1 Social networking of design learners

This CDI sought to understand how students might appropriate *Facebook* as part of the learning experience, that is, whether social networking enhanced student learning. The research method using interviews, observation and some analysis of student exchanges proved workable and useful. The lead academic reported that *Facebook* supported an 'enculturation' into design and, more specifically, course-focused and artifact-centred discourse in design. The lead academic used the data to identify two learner identities: a 'Context Oriented Socialiser' and the 'Content Focused Learner'. He used this to speculate on student ability for community building. This CDI met its measures of success in student willingness to participate, generation of feedback and participant satisfaction. It was concluded that this CDI was scalable for potential use in a PDI. It is not yet possible to report on the influence of this CDI on student retention.

CDI 2 Mapping of design thinking and practice

This CDI set itself the open question of 'how will students use the Compendium tool to enhance learning?' It exploited a suite of qualitative methods of enquiry. The lead academic reported that many participants found the tool difficult and time-consuming to learn. She observed that students tended to focus more on operational issues related to the software rather than on the actual design task at hand. If Compendium is used in Year 2 of the research a simplified version should be created (this is in progress). Some students preferred to use other knowledge mapping software they were already familiar with.

Feedback confirms that this CDI met its measures of success. Participation in this CDI was buoyant, feedback was plentiful and student opinion was positive about the potential of knowledge mapping tools. This tool will form part of new design curriculum at the Open University and will very likely form part of a PDI in Year 2.

CDI 3 Conferencing to support collaborative group work

The questions in this CDI focused on whether live conferencing can aid group formation in collaborative design learning, how tutors and students can productively interact in teaching and learning and to what extent conferencing might support design project work. *Elluminate* was the chosen conferencing tool. As above the CDI proposed a suite of qualitative research methods (participant observer, interviews, video recording and analysis of exchanges). The lead academic reports that conferencing worked well for tutor led discussion. Rich environments using images, audio and video are particularly engaging. The ability to personalise communication through sharing images and applications is valued. But it's not an easy tool to scale up effectively. Synchronous distance group work can be hard to organise and effective small group work in breakout rooms needs 6+ students. Not all students have the modest hardware requirements (e.g. microphones) or, importantly, a suitable environment in which to use one. Text chat does not necessarily enhance participant engagement in group sessions.

This CDI met its measures of success. The participants reported enhanced support for their project work (part of normal coursework). There are pros and cons to including Elluninate in the Year 2 PDIs and this is currently being explored.

CDI 4 Collaborative design in *SecondLife*

In this CDI the key question was 'can participation in virtual world interaction assist students to collaborate in shared design investigation and creative working?'. Currently this is difficult to support in the Open University with its diverse and distributed learner community. Day schools are currently used to bring students together for short intensive design team working sessions but these are expensive in time and resources. The chosen immersive world was *SecondLife*. The method involved a team of participant observers working alongside student volunteers from the Level 2 course Design and Designing. Over five one-hour sessions the group worked together on a range of design problems. A new design brief was generated for each session. Some of these involved working individually in the shared virtual world. Other briefs required the group to collaborate to deliver one shared design proposal.

Data gathering involved images and video of the collaboration, a post-experience questionnaire and feedback from the participant observers. *SecondLife* offers a rich and exciting learning experience but it's not to everyone's taste. Installing the software and registering in the virtual world requires a commitment and the technical demands of the computing specification may put off some potential users. There needs to be a clear inducement to collaboration – at times the participants worked collectively but as individuals with little communication towards shared understandings. It is important to build-in time for participants to get to know each other.

A large proportion of each session was occupied with teaching individuals how to control and exploit their avatar. If *SecondLife* is to be used in a PDI in Year 2, participants need to undergo a comprehensive training programme and familiarisation if the quality of design collaboration and creative thinking is to emulate face-to-face working.

CDI 5 Peer assessment in design

This CDI set out to explore how we might support peer assessment in design. This is one of the core characteristics of an atelier environment where peer-to-peer communication, interaction and peer tutoring and mentoring are vital components of a design studio experience. The lead academic set up a *Flickr* group and recruited student participants to engage with this. He reports that students found it difficult to master the complexity of the *Flickr* environment. As with CDI 4 there is a need for longer training/familiarisation or, as with CDI 3, a simpler interface could be created. This CDI met its measures of success. Students and tutors enjoyed the opportunity for peer and co-assessment process. The data suggests that some student participants act as catalysts to successful interaction and engagement. For example they stimulate discussion threads and frequently open new discussions rather than just contribute to existing threads. Group selection needs to ensure that such catalyst characters are present in all groups. Fourth, the accumulation of comments and pictures has the potential for creating an important resource for future students. The findings from this CDI are likely to be embedded in the design of one or more PDIs.

Key evaluation activities (1st September 2009 – 28 February 2010)

Complete analysis of data from CDIs and evaluations of methods employed to generate Year 1 data.

Develop a detailed plan for the three Programme Delivery Innovations based on the evaluation of the CDI data and the evaluation of research methods used.

Report evaluations to the Steering Group together with proposal for Year 2 activities.

Rationale

The PDIs will be constructed by synthesising the successful elements of the CDIs. The PDIs will focus on Level 1 of a new Programme at the Open University titled 'Design and Innovation'. The reason for this focus is that Level I presents a brand new 60 point course titled 'Design Thinking' and this establishes a radically new model of online design education at the OU.

It is anticipated that this new Level 1 course will dictate the style of presentation for design courses at Level 2 and Level 3 when these come up for re-making (the replacement courses at Levels 2 and 3 will be first presented in 2013).

Where possible the PDIs will seek to involve students at all levels of the Programme. It is intended that the PDI will involve the full cohort of students on the selected course. For the Level 1 course this is anticipated as 500+ students.

Course at all three levels of the Programme begin in February 2010 and end in October 2010. This determines the window of opportunity for running the PDIs in Year 2 of the Atelier-D project. It is anticipated that the PDI will be run in sequence beginning in March 2010 and being completed in September 2010. In this way initial findings will be available for the Final Report in October. However, some analysis will continue beyond October 2010 in order to feed into curriculum development of these live courses.

Section Seven: Issues and Challenges

Report on issues or problems that are impacting on the development and implementation of the project. Detail what impact any issues may have on the achievement of project targets, and set out how you plan to tackle these issues. Report on any unexpected project achievements.

Changes to staffing

- Dr Emma Dewberry took maternity leave from January 2009 to the present. Her CDI was developed and led by Giselle Ferreira.
- Theodore Zamenopoulos was appointed RA to the Atelier-D project when it began in November 2008. Theo successfully applied for a full-time academic post at the Open University and he began this on 1st June 2009. The project has recruited a new Research Assistant, Ms Jennefer Hart, and she took up the RA post on 14th September 2009

Software development delays

Delay in the development of software has hindered the progress of *Open Design Studio* (CDI 6). There is a new time scheduled for delivery at the beginning of November (as outlined in Section 2 – Report on Project Workpackages).

Open University Challenges

To support a diverse student community across a wide age range who have a variety of learning needs.

How off-the-shelf technologies can be tailored to meet the needs of such a wide learning community.

How effective are Web 2.0 technologies for enhancing collaborative distance based learning.

Can the findings of this project be exported to and be integrated with models of face-to-face design education in other universities in the UK and worldwide?

Student Engagement

No issues to report from the CDIs in Year 1. The CDIs used small participant groups – students were invited to take part and it was expected that they would enjoy their experience. The PDIs in Year 2 offer a more challenging context for student engagement because of the very large student numbers involved (500+).

Software Issues

The CDIs have used a variety of software tools and most of these are available in the public domain. Compendium and Open Design Studio have been created in the Open University.

Engaging stakeholders

The Steering group has proved very useful for engaging other universities in the work of the project. It contains three senior academics from three HEIs that offer undergraduate design education.

Engaging the Open University community has been managed through workshops and meetings. Plus the Dean of the Faculty sits on the Steering Committee. The Atelier-D project closely maps onto the most recent strategic vision for the institution making OU stakeholders easier to attract and retain. A new cross Faculty workshop is planned for 1 October and has been coordinated by Atelier-D staff.

One representative of the employer stakeholder community sits on the Steering Committee. One of the priorities in Year 2 will be to strengthen this sector's influence on the project.

JISC stakeholders have been engaged in the progress of the project. Project members have attended a wide range of JISC and Programme meetings, workshops and seminars during the first year. The Critical Friend has been kept informed of developments and has seen sample outputs.

Section Eight: Collaboration and Support

Briefly summarise contact with the programme manager, critical friends and support team, formal or informal links with other projects, programme-related activities, and ways in which you have been able to influence the development of the programme.

Internal project meetings: 19.11.08, 12.12.08, 12.1.09, 11.2.09, 12.3.09, 22.4.09, 19.5.09, 18.6.09, 21.7.09, 28.9.09

Steering Committee meetings: 19.3.09 (at Open University).

Progress meeting with JISC management:

3.12.08 (by telephone between SG, GH and Lisa Gray), 17.2.09 (SG, GH, Lisa Gray, Marianne Shepherd, Sheila MacNeill),

Meetings with Critical Friend (Peter Chatterton) 11.2.09 (by *Elluminate*), 5.3.09, 24.4.09 (by FlashMeeting), 11.6.09.

Camel cluster meetings: 20.5.09 (Open University), 14.7.09 (Leicester).

Attendance at JISC events:

15.1.08 Evaluation support, Birmingham (SG & GH).

12.5.09 Curriculum Delivery progress workshop, Birmingham (SG & GH).

25.6.09 Engaging and Responding to Learners workshop, Birmingham (SG)

Critical friend and Cluster

It has been a pleasure to work with our Critical Friend Peter Chatterton. We have involved Peter in a number of project related initiatives and he has maintained a regular contact through face-to-face meetings and online *Elluminate* meetings. Peter assisted us to devise and present one of our Cluster's CAMEL meetings at the Open University which was very well received. Generally our cluster has been very engaged and stimulating.

Section Nine: Financial Statement

In this section you should detail the expenditure of the project so far. Against the budget headings you should set out the expenditure for the reporting period, noting any significant over/under spend giving reasons for this. You should also state the total expenditure to date against each budget heading.

Total Grant	£180,634	**Duration of project**	2 years
Reporting Period	1.11.08- 31.8.09		

Budget Headings	**Total budget allocated** 1.11.08 – 31.10.10	**Expenditure this reporting period** 1.11.08 – 31.08.10	**Total expenditure to date**	**Further information**
Staff (Consultants)	[redacted]	[redacted]	[redacted]	[redacted]
Travel & Subsistence	[redacted]	[redacted]	[redacted]	
Equipment	[redacted]	[redacted]	[redacted]	
Dissemination activities	[redacted]	[redacted]	[redacted]	
Evaluation activities	[redacted]	[redacted]	[redacted]	
Other (please specify)				

Transforming Curriculum Delivery through Technology Programme

Checklist:

Before you return this report:

- ☐ Ensure that your project webpage on the JISC site is up to date and contains the correct information. Attach details of any required amendments to this report. Project webpages can be found from: www.jisc.ac.uk/curriculumdelivery
- ☐ If there have been any changes to the original project plan and/or work packages, ensure that amended copies of the relevant sections of your project plan are attached to this report.
- ☐ Identify and name any areas within this report that you'd like removed before the report is made public (*see below)

***Please note** the interim reports will be made available on the JISC website and on the Circle site with the budgetary information removed. We recognise that projects may occasionally address very sensitive issues. We would like you to present as full a picture in this report as you can as the lessons you learn are valuable to us. We assure you that any issues you identify as confidential are removed before the report is made public. Where such issues do represent valuable lessons for the community we will involve you in further discussion as to how they could be passed on without identifying institutions or individuals.