Learning from the Learners:

Using web2 for peer support and learning

This paper discusses the preliminary results of a two-year JISC funded project entitled ATELIER-D: Achieving Transformation, Enhanced Learning and Innovation through Educational Resources in Design. The ATELIER-D project is based in the Design group at that Open University. The Open University is the largest distance teaching university in the UK. The design group, has around 1000 students a year studying its courses and materials are delivered in a variety of ways including print, online, course forums, and multi-media materials. There are six academics and a research assistand working on project, each of whom has, in the first year of the project, explored the use of different web2 based technologies to support student learning.

The ATELIER-D project takes as its starting point the recognition that increasing numbers of Open University students are already using web2 interfaces such as Facebook,Skype and Secondlife. Increasingly familiarity with these interfaces is shaping the expectations students bring to courses.

In its first year the project sought to examine the possiblity of using 5 open access interfaces and one inhouse interface for curriculum delivery. The focus of the study was on student engagement and collaborative working as these are viewed as increasingly important areas for designers. To enable this evaluation a series of pilot studies was devised. Each pilot study was carried out with volunteers drawn from existing design courses and focused on using the interface to support a particular learning objective also taught using established distance teaching methods particularly print and multi-media disks. The interfaces used were, Facebook, Secondlife, Elluminate (conferencing tool), Compendium Knowledge mapping, Flickr. Work has also progresses on the development of an inhouse interface OpenDesign Studio (ODS) which will be used in the second year of the project.
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The project has coincided with the development of a new course in "Design Thinking" that starts in February 2010 and will be delivered virtually, apart from a hands-on welcome pack. The design group is experienced in the creation of successful online short courses in design related topics but, this will be the first 60 CATS point course to be delivered entirely through this medium. Experience on other courses has shown that teaching online requires short, succinct, resources for both text and audio-visual materials.

The interfaces evaluated by ATELIER-D

Facebook
The Facebook study involved a group of voluteer students from the second level course in a facilitated group. The facilitators, Nicole Schadewitz and Theo Zamenolopoulos, stimulated group discussion by an icebreaker (What kind of chair am I?), and then led the group by example, posting their own attempts at the design exercise that the students were engaged in. Evaluation of the use of this interface identified two distinct groups of learners, "context centred" learners who used the group for social interaction and the "content focused" learners who used the group for discussion of course content and the task in hand. Content focused learners tended to be irregular Facebook users who used the interface with clear intentions to engage in the group space. The researchers found that context centred learners did engage with the content postings when content

focused learners posted images of work done. The researchers conclude that the use of artefact and image sharing can promote the use of the group space for content focused discussions.
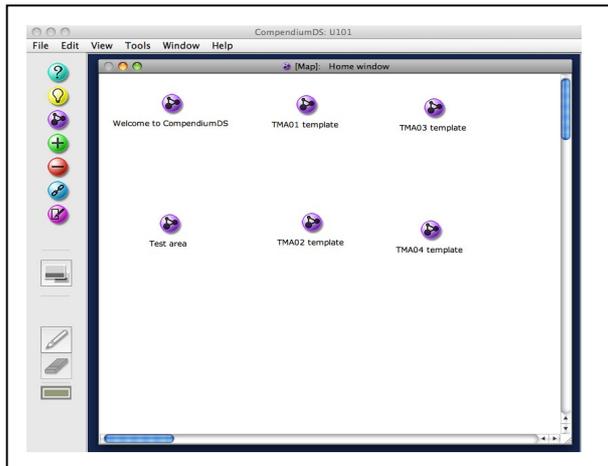
Compendium

Compendium is an online knowledge-mapping tool that enables many different kinds of resources such as videos, photos, pdfs, web-links to be brought together in maps. Connections and notes can be made between and, on, the nodes of the map, items can be reconfigured added to and changed. New map nodes enable a layering of information and ideas. This tool is seen to have multiple potentialities, for example charting learning and design processes or to gathering, classifying and linking resources around a particular topic.

For the research a group of volunteer students were sought from the level three design course. The students were invited use the software to map out their research for a project. The main finding of this study was that students did not make full use of the affordance of the interface because the icon set was perceived as over-complex. The icons were originally designed to describe argumentation rather than design tasks. One student however found this pushed him to think about the task in a different way. Students also compared the software to commercial mind mapping software and described Compendium as less intuitive. The outcome of this study was the modification of the original interface, simplifying and stripping out unecessary functions and using less technical descriptors.
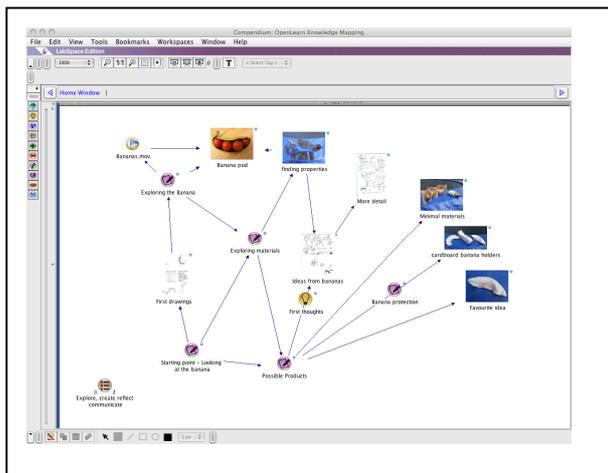
Fig 1 Compendium original interface

Fig 2 Compendium new interface

Elluminate

Elluminate is a widely used online conferencing environment that enables interaction and small group work in break-out rooms. There are two aspects to this study, firstly volunteers were sought from the level three design course to join online discussions around a particular piece of course work. Secondly, a regional tutor used the interface to conduct online tutorials with her own tutor group. The first piece of research showed the difficulties of organising a synchronous meeting with distance learners. Only a quarter of students who had expressed an interest in the study made it to one of the two online sessions. The study also showed that availabilty of technology and also contextual factors determine the extent to which the full affordances of the medium are used. For example a woman student was unable to use her microphone because she was working alongside her small child. Other students were reluctant to use microphones although available. The outcome of this study is a set of guidelines produced by the regional tutor to be shared with other course tutors.

Secondlife

This study involved five one-hour studies of collaborative design in SecondLife, the virtual online world. These sessions took place on five evenings with participants recruited 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.

A key finding of this work was that students felt they did not contribute as much as they would of liked to the collaborative tasks because of their inability to control their avatar. Two sessions were required to learn the basic of operating in the virtual environment and it was found that mixed ability groups were helpful as more experienced SecondLifers were able to assist beginners. Designing in a virtual space is conceptually different to that on a real-world space. Text chat was found to have limitations in this context and voice chat was necessary for

collaboration to be effective. The study found that students need to be induced to collaborate, otherwise some will naturally work alone, however, this needs to be accompanied by time and tasks which facilitate getting to know one another.

Flickr

The intention of this study was to look at the use of this photo-sharing interface as a means for peer assessment. Volunteers were sought to share project ideas and to critically evaluate these using de Bono's six hats method. Twelve students and five tutors from across two design courses expressed an interest, and half of these took part in the study. Full evaluation is still in progress but some general conclusions have been drawn. On the negative side it seems that some students found it difficult to master the complexity of the interface. This is something which could possibly be overcome by training and longer periods of familiarisation. It also appears that participants were attracted to volunteer because of the peer assessment rather than use of the interface and some did not contribute because of difficulties with the interface. However, on the positive side, some students took on a role of 'catalyst', creating threads of comments to open a discussion rather than just provide an evaluation. Also the accumulation of comments and


pictures has the potential for creating an important resource for future students.
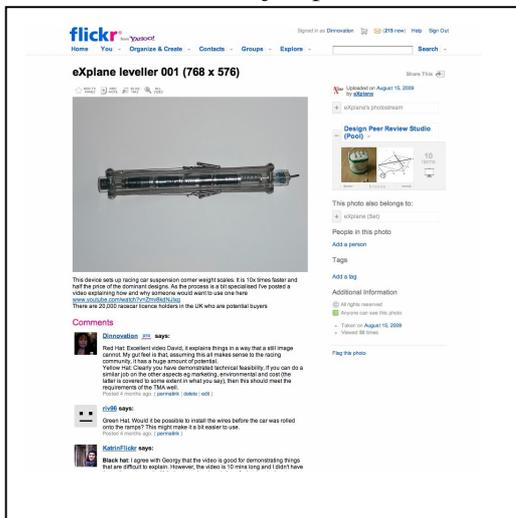
Fig 3 Flickr Peer Assessment

OpenDesignStudio (ODS)

The final interface in the ATELIER-D study has yet to be evaluated. This is the OpenDesignStudio, an in-house development of the Flickr interface that builds on the affordances of that medium to create a virtual design studio. The concept of a virtual design studio is neither new nor unique to the Open University. The Omnium Creative Waves project at the College of the Fine Arts in New South Wales uses this concept to bring together designers from all over the world to collaborate on projects within a given time frame. [1] [2]. The University of Northumbria's Open Folio project created an online showcase and forum for design students and professionals [3].
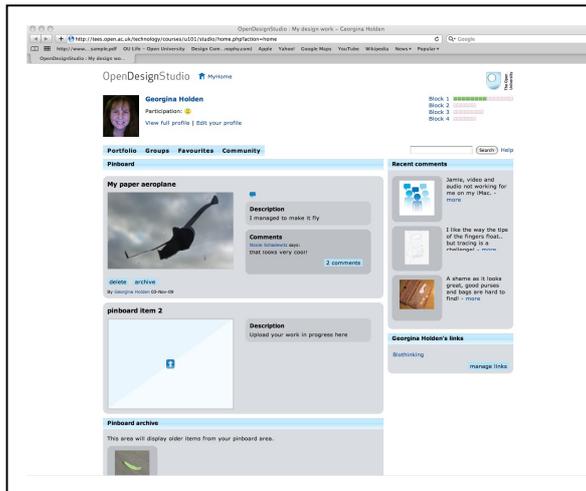
Fig 4 OpenDesignStudio

ODS will offer students on the new level one Design Thinking course, a safe, virtual space in which they can post works in progress, leave written, audio or video comments upon one another's work and have dialogues.] ODS contains a tutor group space for use as a base, as well as access to the work of the entire course community.

A pin board area is used for requests for help, or to post up achievements, as well as the structured portfolio. The ability to comment both by text, audio and video will allow students to reflect and articulate their own practice and to offer advice, encouragement, and constructive criticism of other peoples work and to capture these interactions. Whilst the OpenDesignStudio will not have the tangible immediacy of a live design studio, the advantages are that students will have a record of comments and suggestions and they will easily be able to visit significant numbers of fellow students to talk to about their work. This articulation of the design process should help the reflection and embedding of ideas and practice. [4] Potentially too, learners will gain benefit from feedback from the diversity of the student cohort adding a richness of perspective and better cultural understanding.

A less complex version of this studio has been used successfully for the past three years on a short course in Digital Photography and in-house research has shown that students, enjoy the process of peer review and the creation of communities but that to feel confident commenting on and critiquing one another's work, it is important to offer students guidelines for appropriate behaviour and clear criteria for evaluation.[5]

Future work
The next phase of the ATELIER-D project will monitor and evaluate the use of Compendium, Elluminate and ODS embedded in the new level 1 Design Thinking course; will look at the cross programme support of tutors and students using social networking; and the use of the Open University, Cloudworks interface, to support tutors across the design programme.

Conclusion
One of the general findings of the ATELIER-D study so far has been that, where use of an interface is added on to existing course delivery mechanisms the numbers of students prepared to try out a new method is relatively small. This is compounded if use of the interface is unfamiliar or if there are technical issues that the student is not confident about. In such situations students will be hesitant to engage with a new interface. However, if use of an interface is integrated in to

a course and time is allocated for familiarisationwith the interface as well as the learning tasks that it is used for, then the benefits for distance learning, collaboration and peer support, offered by these interfaces is enormous.

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