FROM D TO E: A JOURNEY OF COMPROMISE AND DETOURS

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ABSTRACT
This paper examines the process of changing the mode of delivering distance learning materials on a Postgraduate Information and Library Studies course from paper based to online e-learning. It discusses the rationale behind the move, and opportunities and obstacles that are faced in the transition. The paper takes Laurillard's (2002) principles which argued that University teaching should be discursive, interactive, adaptive and reflective. Analysis of an existing print distance learning module identified limited opportunities for discourse, interaction and adaptation, with strong emphasis on independence and reflection. Expectations of learners and teachers have changed, as have the opportunities for e-learning (JISC 2007; JISC 2009). It is against this background of change that this paper examines the revision of an existing print based module on the Information and Library Studies programme and the way that e-learning was adopted as a means of increasing the peer-to-peer and learner-teacher discourse via a social environment. The development offered an opportunity to engage with learners, in a manner that reflects the current information environment which for learners is increasingly online, social, and dynamic. The development aimed to move beyond replicating the print medium (Bates, 1995) and exploit the media affordances of the online tools to enrich the learning experience. The teaching staff have balanced pedagogical aims with what is physically possible within the constraints of the department. Using Moodle VLE, Wimba Create, a Flip cam, Windows Movie Maker and AberCast the authors have created an e-learning course that has met some if not all of the initial aims. Ultimately the paper points to the real need for a balance of pedagogy, content, ambition, and practicality to support successful course developments.

Keywords  
e-learning / distance learning / pedagogy / information studies / Moodle.

1. INTRODUCTION
Aberystwyth’s Department of Information Studies has very successfully delivered a pedagogically robust distance learning via the print medium for more than 20 years, with additions to the educational materials delivered via First Class forums and latterly Moodle. As a medium of educational delivery print has acknowledged strengths and limitations regardless of how and where the implementation has been used. For example, it is primarily a narrative form, and similar to the lecture form, it enables the teacher to describe theory and concepts in a transmission mode. However as a medium for distance learning print materials are prevalent because logistically they are simple to produce, and as with text books offer a familiar format for academics and learners to write, to study, and to navigate. For the learner print is portable, they can control progression through pages e.g. through use of indexes and choice of pages. Above all there is potential for annotations and the making of marginal notes. Print works very effectively for many areas of the curriculum.

However if the print medium is measured against Laurillard’s teaching strategy (2002) and conversational framework (Figure 1), then it is possible to identify a number of limitations. Print cannot be truly interactive; there are limited opportunities for adaptation and interaction. Whilst printed distance learning materials aim to overcome this through use of activities embedded within the text where learners write down their thoughts, or direction to further reading which allows some choice as to whether the topic is explored further, it can in no way be considered a full conversation.
Sometimes an enhanced conversation is of benefit to learners, and the development discussed here relates to the journey of an Information Services module on a Master’s programme from a hybrid print and VLE transmission model that largely missed out stages six to nine of Laurillard’s (2002) conversational framework, to an approach that from initial design aimed at exploiting the full range of the conversational framework within a full e-learning model. For this module the content and moment came together in a way that allowed us to explore some of the possibilities, problems, and opportunities involved in designing a pedagogically driven e-learning module that fulfilled the discursive and interactive elements of Laurillard’s model, and in doing so aimed to enhance the learner experience of this part of the curriculum. In doing so the revised module explored new opportunities for online learning, recognised changes in learner expectations (JISC 2007; JISC 2009; Williams et al, 2009), and sought ways of engaging with the learners in a manner that reflected the current information environment which is increasingly online, social and dynamic (Dutton, 2009; OCLC, 2005).

### 2. Approach

The goal was not to replicate the print medium in the online environment (Bates, 1995; Laurillard & Masterman, 2010) but to exploit the media affordances of the online tools to provide a social and interactive learning experience. This had to be balanced against the parameters of limited resources available to support the move: specifically there were two academic members of staff assigned to the module, but their time was split with other commitments, and in addition technical support from service units in the University. The Department of Information Studies does not have a team of dedicated software developers to support initiatives, so existing off the shelf products had to be used to develop and deliver this module. DIS has Moodle VLE which has been implemented with limited customizations. Using the categories from Beetham’s model of learning activity design (Beetham, 2008) Figure 2 below is used to summarise the Aberystwyth context.

Within this framework we endeavoured to increase the level of interaction by building on accepted e-learning pedagogical practices such as Salmon’s 5 Step Model (Salmon, 2004) as well as Laurillard’s conversational framework. The module was created as a series of learning objects using Wimba Create. Each unit of the module was a separate learning object. These are self contained packages of activities, such as fill in the box (Figure 3 below); multimedia activities; reflective questions, and discussion activities.

The benefit of choosing the learning object approach is that as each is self contained, they can be easily updated or replaced with little impact on the rest of the module (Weller et al, 2005, p. 69). In addition, for certain units we provided subsidiary learning objects which enabled us to provide the user with a basic level of adaptation. These subsidiary learning objects focussed on specific information service contexts e.g. public, school, health, corporate or academic libraries. Learners can then pick which of these they study depending on their own personal interests and goals.

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1. Hereafter referred to as DIS
2. As outlined in Stage 10 in Figure 1
Learning Environment for module
- Tools: Moodle VLE, Wimba Create, Aber Course Cast, Windows Movie Maker, Flip Cam, images from Flickr creative commons, PowerPoint & Word.
- Resources: 0.5FTE teaching staff, editor, University information service staff

Learners
- Part-time distance learning postgraduate learners. Working to obtain professional qualification in Information & Library Studies. Study module at own pace and set own deadlines – no set ‘start/finish’ date for module. Prior experience is of independent study in the print medium. Adult learners: goal orientated, experienced, expectations based on prior educational experience, suffer from competing demands on time (Rogers, 2002, p70-83)

Intended learning outcomes
- The module is designed to take Master’s learners through the key elements of Information Service planning and provision, and to introduce to them the role of users, evaluation methods, key research themes relevant to contextualising information service use, the methods of analysing and evaluating sources and services, and key elements of strategic planning of services.

Other People
- 0.5 FTE teaching fellow, Module co-ordinator, other learners studying module, workplace colleagues, personal tutors, DIS support staff, interviewees.

Activity: Information Services
1. Can you think of different types of information service you may use as part of your everyday life?
   Write down as many different information services as you can.

3. COMPROMISES AND DETOURS
   Although the objective was to use the technology to facilitate “innovation and improvement in teaching and learning” (Laurillard & Masterman, 2010), it was found that compromises had to be made in order to deliver the module. These were determined by the limitations of available tools; requirements of professional validating bodies; resources available to support the model and the logistics of the Aberystwyth distance learning model. The paper will now discuss these in relation to the literature.

3.1 Limitations of tools
   VLEs regardless of brand are by their nature a complex tool with multiple limitations: as educators we work with and around them. Technically it is not feasible for any organisation to take wholesale all of the interactive tools and addons available and hope to support them. For Moodle, our specific module highlighted that it was not possible to create a series of self contained pages with activities for each sub-unit without encountering usability issues in terms of ease of navigation. In order to structure content in larger units, the use of Wimba Create to produce learning objects which have a simple navigation proved beneficial. Wimba allows these learning objects to be created in a Moodle SCORM format.

   To have true interaction and adaptation there should be an iterative dialogue between teacher and learner. Wimba create as a tool supports limited feedback options. It is still primarily a narrative medium. It is possible to insert different types of questions and matching activities using the tool, but feedback is limited to a predetermined response from the tutor. Similar to the print model, there is no further opportunity for an iterative dialogue, or adaptation of the feedback dependent on what the learner has produced. In some ways these text box entry activities are not as adaptable as white space in a printed module, as the content is not saved unless the user copies and pastes it into another application. The activities provided by Wimba create are quite basic, and not conducive to deeper learning. It was necessary to consider alternative activities such as online discussion, reflective questions, directed reading to stimulate higher level of learning than the tool allowed.

   For purposes of review and evaluation there was a requirement to track usage of forums and the learning objects. Unfortunately the basic Moodle reports are just activity logs that require export to database and further querying to be useful. One of the limitations of using Wimba is that it can be seen from the Moodle log...
that a learner has accessed the learning object, but once they are in the object itself there is no tracking. To evaluate usage alternative methods such as surveys and focus groups will need to be instigated.

3.2 Pedagogy versus pragmatics

3.2.1 Example 1: Interaction via Salmon’s 5 Step Model
To meet the objective of increased interaction and enriched learning experience, a number of online discussion activities were seeded throughout each learning object. Figure 4, below, illustrates the how Salmon’s 5 stage model, was applied within the Aberystwyth context.

<table>
<thead>
<tr>
<th>Salmon’s Stage</th>
<th>Aberystwyth Instantiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Access &amp; Motivation</td>
<td>Module introduced at residential Study School. Socialisation initiated in face to face environment. Module introduction unit and welcome messages seeded in forums.</td>
</tr>
<tr>
<td>2. Online socialisation</td>
<td>A synchronous web-chat was offered at start of course, but no takers due to possible mistiming. Socialisation occurs external to course, with forum content largely task based reflecting goal orientated approach of adult learners.</td>
</tr>
<tr>
<td>3. Information exchange</td>
<td>For exchange to occur there needs to be substantial body of participants. Rolling start dates means that full co-operation is difficult and likely to be dispersed over time. Learners are submitting messages but mainly in response to activities</td>
</tr>
<tr>
<td>4. Knowledge construction</td>
<td>Some evidence of learners responding to each others messages. Highest response is to queries, but some “weaving” of contributions and commenting further on them.</td>
</tr>
<tr>
<td>5. Development</td>
<td>It is too early to state whether this will be possible. So far comments have been supporting views already expressed rather than critically commenting</td>
</tr>
</tbody>
</table>

Figure 4: Examination of Salmon’s 5 Stage Model

Salmon’s model may be a good starting point, yet it should be recognised that it cannot be applied in every context (Lisewski & Joyce, 2003). At Aberystwyth the fact that learners from different cohorts will be responding to activities at different times skews progression through the levels and makes socialisation somewhat complex, but has huge potential for peer interaction and support to enhance socialisation.

3.2.2 Example 2: Encouraging Adaptation
Within Laurillard’s framework emphasis is placed on the need to allow adaptation of the learning experience based on the requirements of the learner. Weller et al (2005) describe a learning object based course model that encourages a high level of adaptation, where learners choose what objects to study and what to include in their assessment. This model requires a significant investment of resources in terms of creating a substantial body of objects for learners to work with. Whether every institution would have the development time to create such a collection is debatable. In addition, the module is part of a programme accredited by CILIP and as a result there are requirements that must be met. A compromise was made with adaptation provided via sector-specific subsidiary objects that were introduced in two units. Adaptation is also provided through further reading listed within the objects, and a collection of social bookmarks. The social bookmarks are constantly updated by the teaching fellow, and tagged with relevant unit as well as keywords.

Applying adaptation through iterative feedback and subsequent task modification has significant resource implications, and is not always practically possible. Some iterative feedback through the use of online discussions was obtained. Even this is limited by availability of teacher time to respond to learners. Although some individualised responses are made to forum messages, the teacher has concentrated on weaving replies, and ones that encourage further information exchange. However it was not possible from a resource perspective to provide modified tasks within the learning objects themselves.

4. Results so far
The module was launched to the distance learners at the end of January 2011, with an initial 35 learners. In the first month 77% had viewed the forum that supported Unit 1. There have been some minor technical problems as would be expected in the first iteration of an online module. These include Mac users being unable to play video footage embedded in the learning object, conflicts between Moodle glossary terms and Wimba create learning objects causing blank pages to display, and delays in digitised copies of print readings. These have been solved promptly, and the learners have shown appreciation of this.

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3 Chartered Institute of Library and Information Professionals
4 [http://www.delicious.com/JFJ24/isip4d_unit1](http://www.delicious.com/JFJ24/isip4d_unit1) are bookmarks for first Unit
5 This number is increasing as students take the module.
Investigation of Moodle’s logs shows that all learners have accessed Unit 1, although number of accesses per learner range from 1 to over 70. However the number of views far outweighs the number of posts, with posting being a mere 2% of total activity for the period to date. That said, total learner activity in Moodle has doubled since the module was released. It is to be hoped that as more time passes further students will engage with the interaction, although it is a well known fact that lurking is a more prevalent behaviour in online communities than participation. Initial posts have been positive, and have shown understanding and engagement with the tasks. Following weaving examples from the moderator some students are now replicating this behaviour and are adding links to resources to support their comments.

During the process of creating this Unit teaching staff have developed skills in creating and manipulating video footage; developed good practice in using Wimba Create to produce learning objects; identified and solved technical issues with the tools used; and, perhaps most importantly contributed to an ongoing dialogue that brings tools, curriculum and e- pedagogy into a wider discussion. As a learning organisation, we learn by being challenged and stretched. The result seems positive, and is highlighted by some positive feedback that has already come from the learners, one in particular has tweeted “planning for delivery. It’s surprisingly forward thinking. I like it #aberils”, and another in a personal email regarding technical queries commented “Although finding this a bit frustrating, I am enjoying this module - bookmarks on delicious particularly helpful”.

5. CONCLUSIONS

Educators who want to be innovators face a difficult balance of sometimes conflicting demands of pedagogy, content, ambition, and practicality to support successful course developments. Within information studies the terms satisficing and sufficiency are used to discuss information behaviour, and these terms can be applied appropriately to what has been achieved in this development. Working within the resource constraints we have, using available tools and striving to embody good pedagogical practice, we have achieved an online e-learning module that allows some adaptation by the learner and increases the opportunity for interaction. We may not have achieved a full conversation with our learners but we have initiated a dialogue which we can build upon with further revisions to the module, through continued consideration of new tools and methods, and feedback from our learners.

6. REFERENCES


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