Some issues affecting the sustainability of open learning courses

Conference or Workshop Item

SOME ISSUES AFFECTING THE SUSTAINABILITY OF OPEN LEARNING COURSES

James Aczel, The Open University, UK, Simon Cross, The Open University, UK, Andreas Meiszner, UNU-MERIT, The Netherlands, Pascale Hardy, University of Liverpool/Laureate, UK, Patrick McAndrew, The Open University, UK, Doug Clow, The Open University, UK

Introduction

While there has been much excitement in recent years about the potential of Web 2.0 principles, open educational resources (OER) and cross-border educational programmes to catalyse enhanced pedagogies, the world economic downturn has focused attention on the sustainability of open learning initiatives. Can making content more widely editable, reusing learning resources and sharing responsibility for course delivery result in higher production speeds, better materials, and lower costs?

The openED 2.0 project is trialling a hybrid organizational framework of open inter-institutional course production and global open course delivery that seeks to explore these issues. Seven European organisations have collaboratively generated a Free/Open online business studies course, based on existing and freely available materials, and with professional and academic strands. The course has been run once so far; further rounds over the next 18 months will make the materials more widely editable and will explore charging for facilitation, assessment and certification.

Questions to be addressed in this research include: How do materials generated by such open initiatives develop over time, and what are the drivers? What learning takes place, and what are the drivers? What issues arise associated with cross-cultural and multilingual settings? How are differences between formal and informal education exhibited? What are the factors affecting speed of production, effectiveness and sustainability?

This paper presents preliminary results in relation to three aspects of the openED course relevant to achieving more sustainable learning opportunities: (1) international and inter-institutional curriculum design; (2) designing learning for international online participation; and (3) reuse of OER within an open online course.

Hybrid Organizational Frameworks supporting Open Education and Open Educational Services

The openED course has been designed and delivered using a hybrid organizational framework that was developed and piloted within earlier research projects (Meiszner, 2010; Meiszner et. al., 2008; Meiszner, Moustaka & Stamelos, 2009; Weller & Meiszner, 2008). The framework was initially derived from the Meta-design conceptual framework (Fischer 2007) and its underlying "Courses as Seeds" (SER) process model (dePaula et al., 2001). The Meta-design conceptual framework aims at "defining and creating socio-technical environments as living entities" (Fischer 2007).

This hybrid organizational framework posits that OER constitute just one element of Open Education and that OER should be embedded within an overall Open Educational Service concept. In such a concept, education is not understood as a "finished product" to be sold and consumed, but as part of a service-based educational economy in which open educational services would be generally characterised by: independence (by-and-large) from existing

physical educational infrastructures; self-organised community-based learning processes; community-based production of learning materials; and flexible learning and teaching roles.

The hybrid organizational framework also pays close attention to retaining the artefacts created by learners, capturing learning processes and activities, and embedding all of this within the course in a way that enables others to re-experience later. Such re-experiencing is portrayed as a key characteristic of learning within informal and mature learning ecosystems (Glott, Meiszner & Sowe, 2007). Within these ecosystems, content is often taken forward and backward, contextualized, adapted, translated, re-mixed, embedded into processes or fed into new products by individuals acting as knowledge brokers (Weller & Meiszner, 2008). The hybrid approach, then, is that anyone interested in the subject can participate ("inviting in") and the outputs of such participation are shared ("sending out"). This approach does not intend to simply provide the learner with a finished set of expert-developed static content to be consumed, but instead expects the learner to become an active participant in the particular field of study, to acquire subject matter skills through practice, and to gain key and soft skills as a result of activities and engagement.

In the context of the openED project, the "community" should be understood as including those people who choose to join the project team, those who contribute to developing the course without necessarily seeing themselves as formally part of the project team, and those who share the artefacts they have created or discovered without necessarily seeing this act as enhancing the course.

The openED 2.0 initiative

In designing the openED course, the project partners identified topics of mutual interest to their stakeholders, coalescing on a theme of "Business and management competencies in a Web 2.0 world". 10 modules were planned, to take learners approximately 14 weeks of work, at approximately 5 to 15 hours of work per week (depending on the level of a participant's prior knowledge and their commitment to individual activities). Modules include "Searching for information in business and management", "Quantitative and qualitative analysis tools", "Change management", and "The Ethical Organisation". Two suggested routes through the modules were generated: a "professional strand" targeted at managers and other business professionals; and an "academic strand", targeted largely at business students. The strands can be taken separately or combined. Modules can also be taken individually.

The partners drew on a number of content sources. The Open University provided material from a postgraduate educational technology research module, supplemented by business and management content from OpenLearn (http://www.open.ac.uk/openlearn); while the Hellenic Management Association made available materials derived from those used in face-to-face training.

The directions for each module are given on a single web-page. Each module starts with a list of intended learning outcomes, then describes the learning activities, and ends in a "learning project". The project constitutes an artefact that acts as a goal for the module, provides a basis for assessing achievement, and has the potential to be a resource for re-use by others. The modules were drafted in a wiki, to allow any of the project team to help improve the materials.

The modules are released under an open licence (typically CC BY-NC-SA) and are available at all times for self-study. However, the project has also created a facilitation infrastructure that includes an introductory chat session, group activities, and moderated discussions. For the first presentation of the course, facilitators were provided by the partners. The aim is to

explore whether, over time, facilitation can be provided by the community itself. In this first presentation, the live materials were not editable by participants outside the project team. Again, the intention is to explore whether, over time, the community revises and supplements the materials as needed.

Methods of data collection

A range of data collection methods are being used to address the research questions: website logging; observation of interactions in forums, download areas and live chat sessions; surveys of designers and participants; semi-structured interviews; and learning diaries. With this data we intend to explore contributions and roles, and materials development over time. At the time of writing, the first presentation is almost complete. At least two further presentations will take place over the next 18 months. The results below are based on a preliminary examination of 16 "Learning Reflection Logs", about 350 forum posts, 10 IRC text chat sessions, and three email interviews. Based on early data analysis, the results discussed here relate to three aspects of the openED course: (1) international and inter-institutional curriculum design; (2) designing learning for international online participation; and (3) reuse of OER within an open online course.

Results

(1) international and inter-institutional curriculum design

Recent work on learning and curriculum design has drawn attention to the difficulties encountered, even within a single organisation, in ensuring quality and consistency in process, pedagogy, resources, teaching, assessment and support services (e.g. Beetham, 2009). The openED project seeks to move one step further: to involve several institutions located in several different countries in the writing of an open course. A challenge for inter-institutional design therefore is reconciling different expectations and traditions of designing and writing courses; for example, it was found that terms associated with assessable student output such as "assignment", "assessment", and "learning project" have been interpreted or used slightly differently by module authors and facilitators.

There were also tricky decisions to take in relation to which materials and sessions should be in which languages. The remit of this particular project was that English was to be used predominantly, but the take-up of some modules resulted in situations in which a module had largely Greek-speaking participants using materials translated from Greek into English, facilitated by a Greek-speaking facilitator having to use English.

Other challenges included negotiating the facilitator approach and level of support provided, and logistical considerations such as term dates and availability for chat sessions.

So far there is only limited evidence of a design culture similar to that of other Open Source communities. Despite well over 300 course registrations, including other teaching professionals, no direct changes have been made to the module content by people outside the project team. Although it was possible for anyone to edit the draft modules, this fact was not energetically publicised, because the project team felt it needed to more clearly define the style and scope of each module before others were encouraged to edit. However, even within the project team, data so far suggests that module authors have only rarely commented upon or changed other modules. One reason might be a desire to respect an author's right to design a module in a certain fashion, particularly a first draft when the style and scope can be unclear. Another reason might be a nervousness about criticising peers. Perhaps a less informal quality assurance process might help here.

One danger of adopting a distributed process of course design is a lack of coherence. Some consistency in structure, style and terminology was introduced after the first drafts were published, but big differences remain. For example, Module 5A1 includes around 50 tasks over 30 hours (an average of 38 minutes per task); whereas Module 5P3 includes just 6 tasks over 20 hours (3.3 hours per task). Module 2 is very practical, with a variety of tools and collaborative peer-group activities; whereas Module 5A1 requires much reading, with some facilitator-led discussions afterwards. Such differences are not in themselves a bad thing, since modules have different learning outcomes and different intended types of participants; and for those who wish to take all the modules, some variety is refreshing. However it is not yet clear whether participants prefer more coherence.

(2) designing learning for international online participation

The openED course was designed to encourage active engagement by participants. Some modules featured formal group working activities, whilst all included semi-structured opportunities to meet others in IRC chat sessions and forums and to encounter others' work in the Downloads and Learning Project area of the website. Feedback reveals that the social side of learning – the meeting of other learners and the relationships with the facilitators – was the area participants seemed to enjoy the most. However, achieving this required commitment on behalf of both the participant and the facilitator. Indeed, around 50% of all page views were made by a core group of just five learners.

Group work activities offered the greatest opportunity to build social relationships. However, on average, fewer than half of those who joined a group at the beginning of the module completed the group activity, which demonstrates the difficulties participants encountered in group self-organisation and management. Different working speeds, time-zones, visit frequency, availability, and attitudes or confidence in posting on public websites were all evidenced.

One factor in these difficulties with group work might also have been timetabling. The project team held varying views about whether to present Modules 1 to 4 simultaneously or sequentially. Sequential presentation would lengthen the duration of the course and perhaps make it harder to retain a core group of participants for most modules; simultaneous presentation would increase workload for all, and make it harder to keep track of group work. A decision to present module 1-3 simultaneously was reached by agreement. Evidence from participants so far suggests this simultaneity may have proved problematic for many participants.

However, once established, groups often worked well, with participants using a combination of onsite tools (forums, messaging, etc.) with off-site tools (e.g. email, Skype, Google Docs). Feedback from those who completed one or more group activities (n=12) reveals that interaction with others was regarded as a key benefit. The following comments were not uncommon: '[this week I most enjoyed] working in groups because it's a great way to share and improve ideas and we still have time to share some cultural differences' and 'I had the chance to share information and opinions with people with different cultures.' This demonstrates the value international courses can offer.

Participants were encouraged to post work on the site and these downloads were viewed by others. However, the module instructions were only editable by the project team and there appeared to be little interest from learners in having the ability to edit these directly. Instead, issues associated with clarity of instructions, broken links, and problems with other participants were in general referred directly to the module facilitator.

Cultural attitudes toward engaging and posting comments are also of particular interest. For example, an initial analysis of website page views (including the forum area) shows that 45% of registered users identifiable by name (n=150) who logged in were from Europe, and a further 45% were from Africa. However, when the total page views from these users was analysed, it seems that European users made many more page views (80% of all views) than their African counterparts (around 10%). It would also appear that real geographies and existing social networks – such as a participant knowing the tutor from face-to-face lecturers or through an existing social contact – were often carried over to the virtual space although several key participants had not known anyone else before joining the course. Overall, the success of individuals in engaging and developing often necessary social relationships varied greatly, indicating that more guidance for participants in how to work virtually may be required.

(3) reuse of OER within an open online course

In deploying a wraparound model of reuse, the authors of each module had numerous decisions to take about which parts of the source content to select, which to adapt or ignore, and what new material to write. There were a range of factors affecting these decisions. For example, one issue in reusing OpenLearn content was that whereas the original audience for the OpenLearn materials was university students, the audience for the openED modules was much wider and specifically included managers and practitioners. Further examples are provided by Module 6 "The Ethical Organisation", in which whereas the OpenLearn materials were designed to be self-study, the openED module could take pedagogical advantage of discussion forums and recent freely-available case studies.

The rationales for such decisions, as articulated by some of the authors, seem to fall into two categories. Selection decisions typically appear to be based on relevance to the module's specific learning outcomes. However, development decisions (e.g. to write new materials, to adapt existing materials, or to provide custom navigation around existing materials) seem to be based on a variety of reasons, such as insufficient or missing coverage of learning outcomes; dated materials; differences in target audience between the module and the original material; a need for material to fit in with, to build on, or to provide a contrast with the presentation or style of working established earlier in the module; a belief that existing materials can be improved upon in some specific way; a desire to experiment with new ways of presenting content; or a lurking fear that reuse seems like "cheating", associated with a view that crafting materials is what teachers are supposed to do.

So, in this particular study so far, there appears to be a two-stage strategy of simple selection followed by development, the second stage involving more sophisticated reasoning than the first. Whether, with more experience of reusing OER, authors' strategies might become more nuanced remains to be seen.

Discussion

Although these are preliminary results, it is clear from this work that adopting an Open Educational Service approach to the design of online courses introduces much more complexity than simply re-using OER. For example, it proved challenging to fully open, up in a single course presentation, design decision-making, resource selection and material development, quality control processes, facilitation, and paid-for assessment. It is possible that the nature of the challenge is less to do with the time available than with the designers' need to cope with unfamiliar, and perhaps uncomfortable, shifting sands associated with opening up so many educational processes simultaneously. But it is also possible that participants in open courses might tend to be more genial about failings in a first presentation

because (a) the course is free; (b) there is an acceptance that such courses are intended to be collaboratively improved over time; and (c) dissatisfied participants simply withdraw. It remains to be seen whether such geniality remains in subsequent presentations, particularly when some services are paid-for.

More research is needed over the rest of the project, particularly looking at the development trajectory of materials by the community over time, the pattern of participant interactions, the quality of participants' work, the usability and functionality of the technical infrastructure for learners and authors, the trialling of models for sustaining the course, and the evolution of the community participating in the course.

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