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MOOCs' contribution to staff development and capacity building: Australian University Case study

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Abstract

This paper demonstrates how engaging in the development of MOOCs produces benefits beyond student learning and reputational benefits to the institution. The Australian National Centre for Ocean Resources and Security (ANCORS), a University of Wollongong (UOW) specialist centre in ocean law and policy research, developed a MOOC as a first step towards a fully online Masters program, despite the team's limited experience with online teaching technologies. This small scale pilot suggests that engagement in the development of MOOCs supports not only staff skills' development, but also stimulates capacity-building - both within the academic unit and within the broader institution - for a transition to the development and delivery of fully online/distance curriculum development. The skills developed among staff were across both pedagogical and technological domains. The additional capacity developed for distance/online delivery within the university were primarily across the domains of organisational systems, but to some degree also effecting technology, partnerships and processes - all dimensions of organisational capacity.

Keywords

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MOOCS' CONTRIBUTION TO STAFF DEVELOPMENT AND CAPACITY BUILDING: AUSTRALIAN UNIVERSITY CASE STUDY

Abstract

This paper demonstrates how engaging in the development of MOOCs produces benefits beyond student learning and reputational benefits to the institution. The Australian National Centre for Ocean Resources and Security (ANCORS), a University of Wollongong (UOW) specialist centre in ocean law and policy research, developed a MOOC as a first step towards a fully online Masters program, despite the team's limited experience with online teaching technologies. This small scale pilot suggests that engagement in the development of MOOCs supports not only staff skills' development, but also stimulates capacity-building - both within the academic unit and within the broader institution - for a transition to the development and delivery of fully online/distance curriculum development. The skills developed among staff were across both pedagogical and technological domains. The additional capacity developed for distance/online delivery within the university were primarily across the domains of organisational systems, but to some degree also effecting technology, partnerships and processes – all dimensions of organisational capacity.

Keywords

Staff development, MOOC benefits, MOOC challenges.

Introduction

The suggested benefits to universities resulting from offering massive online open courses (MOOCs) typically refer to reputational benefits, an academic training ground for students (Campbell 2013; Weller 2015), a pipeline of paying students (Campbell 2013), and / or a source of revenue resulting from online students paying for accreditation (Valentin et al. 2014). This paper argues that additional benefits, internal to the university, can result from such engagement, in particular, staff professional development, and the stimulation of capacity building.

Professional development is broadly defined as “activities designed to enhance the professional knowledge and skills of educators so they might, in turn, improve the learning of students” (Guskey 2000, p. 1). In the area of eLearning, professional development typically refers to “new knowledge, skills and abilities to be able to integrate e-learning into their teaching” (Stein, Shephard & Harris 2011, p. 146). Beyond this focus on the skills of the teacher, “capacity building” typically involves supporting infrastructure in terms of appropriate technology, time, organisational systems, processes, partnerships, and support (Rosenberg 2007; Lim & Pannen 2012). This paper demonstrates how engaging in the development of MOOCs produces benefits beyond student learning and reputational benefits to the institution. The experience at the University of Wollongong (UOW) suggests that engagement in the development of MOOCs supports not only staff development, but also stimulates capacity-building within the academic unit for a transition to the development and delivery of fully online/distance curriculum development. It describes the development of a as part of a partnership with external MOOC provider Open2Study, and the subsequent development of an online Masters programme in a niche area of research expertise.

The problem

Even when a university has eLearning delivery capabilities, the journey to the development of fully online programmes can be far from smooth, particularly when the institutional focus is on blended or hybrid learning, where technology is positioned to support students and staff parallel to face-to-face teaching. This section describes the academic unit involved in case, the skills that it had, and the elements needed for developing the Ocean Governance (Maritime Law) MOOC.

Background – Academic unit and challenges

The academic unit in this case was the Australian National Centre for Ocean Resources and Security (ANCORS) founded in 1994. The unit is a specialist centre in ocean law and policy research, and delivers postgraduate programs in these areas. Before the development of the MOOC, the centre had established three Masters programmes offered in an intensive delivery-mode, in Maritime Policy, Maritime Studies and Fisheries Policy, as well as supporting Graduate Certificate programs. This mode has proven successful over many years, and is commonly used in postgraduate legal education in Australia.

In mid-2013, following feedback from government officials in developing states, staff at ANCORS resolved to create an on-line Masters programme, in order to cater to those students without the time and/or financial resources to participate in the existing Masters programme.

The staff's limited experience with online teaching technologies posed a significant challenge in developing an online Masters programme, and their skill gaps are summarised in Table 1. Training would have clearly been necessary for staff to not merely create a course, but to also gauge an effective course format. The staff were introduced to the university's manager of Open Education, who recommended the development of a MOOC. This provided the unit with an opportunity to acquire skills in the preparation of an online course, and in online delivery. A team of three staff were central to the preparations, while 8 staff appeared on camera.

Table 1 Summary of pre-existing and needed skills for MOOC development

Pre-existing staff skills	Needed skills
Subject matter expertise	Familiarity with online delivery pedagogy
Acknowledgement of need and value of MOOC	Technical expertise in online delivery tools
"Block" face-to-face teaching programs	Video recording
1-2 hour lectures	Breaking content up into smaller chunks
Text-based lecture slides, plus maps	Inclusion of cases with graphics
Assessment: writing essay questions	Writing online quiz questions

The MOOC was developed by "up-cycling" of existing PowerPoint lecture content, by breaking the content into smaller module chunks and adding audio narration via the software Camtasia. Also some live 'talking head' intros and case studies were added and additional maps and photographs to create a compelling video package. The MOOC production methods were modified to better suit the local purpose and resourcing. For example, staff were able to film the online courses without a TV/film studio, rather using a reconfigured meeting room in our own building to save time and cost.

The MOOC outcome was positive. Success is evident in three different domains: student feedback, course re-use, and staff uptake. It attracted over 2500 students, and its approval rating from participants of over 90%.

Skills developed

Although the need for technical skills was obvious, pedagogical skills required for online delivery were far more complex to acquire, and contrary to technical skills, often lack a structured format for acquiring them. Pedagogical skills were developed in this case include online delivery, content re-structure, integration of graphics, and the development of online assessment items. These skills are described next and summarised in Table 2.

Online delivery-

In addition to the technical skills developed in the process of developing the MOOC, staff skills development was evident mainly in the pedagogical domain. Staff developed technical skills around the use of Camtasia to record audio annotations to their slides sequences. However, this also involved significant development of pedagogical skills, to match existing content elements with an appropriate delivery style. For example, some content was best suited for delivery using Camtasia, whereas other – using a personal conversation style, via 'talking head video'.

Content restructure –

Content had to be revised at the subject level, so that topics currently included are organised in the best order for delivery. In addition, the program coordinator negotiated the allocations of staff members to the delivery of each topic.

Furthermore, the topic delivery required structural changes. In the pre-existing subject, content was delivered in 1-2 hour lectures, which is unsuitable for a MOOC delivery. Staff learned to break content down into smaller chunks, and add meaningful linkage between them by using scripted introductions and/or closures.

Graphics integration-

The pre-existing subject, visual illustration of content was done using text-based lecture slides and presentation of maps. The online delivery mode called for the development of a single PowerPoint template to be used by all presenters, requiring co-operation, and in some case revising existing PowerPoints to fit the new template. It also required a change to the usual routine of working on PowerPoints in isolation.

Online assessment –

The pre-existing subject, assessment was based on essay writing questions. These were kept however additional online quizzes were developed for each week/topic to ensure that students were not taking shortcuts with the lecture/video content material including readings. Different levels of staff skill in writing useful quiz questions was evident, and the more experienced staff provided support to those who had not written quizzes before.

Table 2 Summary of staff technical and pedagogical skills developed during MOOC development

Skill developed	Skill domain	Description and example
Online delivery	Technical Pedagogical	Using Camtasia to record audio and annotate slide sequences Matching existing content elements with an appropriate delivery style (Example: Delivery through Camtasia, or by a personal conversation style, via 'talking head video')
Content restructure	Pedagogical Pedagogical	Organising currently included topics in the best order for online delivery Breaking content down from 1-2 hour lectures into chunks suitable for MOOC delivery, and adding meaningful linkage between them by using scripted introductions and/or closures.
Graphics integration	Pedagogical and technical	Developing a single PowerPoint template for presenting visual illustrations
Online assessment	Pedagogical and technical	Developing online quizzes for each week/topic to ensure student continent coverage of video lectures and readings

Capacity developed

In addition to the skills developed among staff, the process of developing the MOOC also resulted in additional capacity development for distance/online delivery within the university, as summarised in Table 3. Each of these processes requiring change related to primarily to organisational systems, but to some degree also effecting technology, partnerships and processes – all dimensions of organisational capacity.

Table 3 Summary of organisational systems' capacity before MOOC development, and resulting changes

Before MOOC norm	Change/exceptions required for a MOOC
Students recruited via traditional marketing	Students recruitment via third party
Long lead time to add new subject	Rapid subjects development
CRICOS: international student visas	Visas and CRICOS: not needed
Students enrol via UOW website	Manual students' enrolment
Staff upload materials to Moodle	Distributed team of casuals/students
Moodle template for blended learning	More corporate look needed
Book rooms for teaching	Book rooms for filming lectures

Each of these changes from the standard organisational practice required negotiation of exceptions, often to the level of Dean signatory, and in the case of CRICOS registration, to the level of DVC review. This created a significant addition to staff workload, however by creating a precedent, future online subject development is expected to go more smoothly and the team can now advise and support other units developing online programs.

Success of the first online Master's subjects

These students provided an initial modest cohort to cover course development costs, as well as to validate the concept with a small but motivated highly intelligent group of students.

The course will be reused in an online programme in maritime crime for judges and prosecutors in Kenya, Mauritius, Seychelles and Tanzania, as ANCORS secured the financial support of the Australian Department of Foreign Affairs and Trade. Staff are willing to re-run this course, and discussions to secure funding for a second iteration is in train. In the light of this experience, ANCORS has recently decided to rapidly develop 5 more fully online subjects, and rate this challenge as something that is achievable. This represents a considerable ramping up of output of online subject development, over a relatively short space of time.

Conclusion

This paper demonstrated how, by developing a successful MOOC, the university not only benefits from accessing and training students external to the university, but also how the development process leads to internal skill development and capacity building. The case showed how the pedagogical and technical requirements of a MOOC trigger staff skills development to address these requirements. In addition, the exceptions from the normal university procedures required for the development of the MOOC highlight organisational capacity issues to be addressed if fully online program delivery is to be taken up. This extends the typical view of university engagement in developing and delivering MOOCs.

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