#### Mobile, Openness and Badges: Challenges in developing an online study portal

## **GLOBAL** PERSPECTIVES

In the bid to support and encourage the next generation of scientists studying in higher education, a small team set out to develop a pre-orientation learning package entitled Global Perspectives. The aim was to develop an online student portal that explored what it means to be a scientist and varying cultural perspectives as well as providing academic knowledge diagnostic and learning modules for both language and numeracy skills. This student portal would be available to anyone either interested in studying science or those who were recently accepted to study science at university.

## INNOVATIVE **LEARNING APPROACHES**

Innovation in learning approaches and educational technologies has influenced how we design and develop learning media. Trends in mobile learning, open education resources (e.g. MOOCs) and badges present new ways in which students interact and consume learning media. It was envisaged that this resource would be characterised by these trends in innovative learning.



Anywhere for any device everyone

Assist cognitive development

Motivate self-regulated learning

Fletcher, J., & Tobias, S. (2005). The Multimedia Principle. In M. R (Ed.), The Cambridge Handbook of Multimedia Learning. Cambridge: Cambridge University Press.

Haug, S., Wodzicki, K., Cress, U., & Moskaliuk, J. (2014). Self-regulated learning in MOOCs: Do open badges and certificates of attendance motivate learners to invest more. U., & CD (Eds.), EMOOCs, 66-72.

Terras, M. M., & Ramsay, J. (2012). The five central psychological challenges facing effective mobile learning. British Journal of Educational Technology, 42, 820–832.

Platform evaluation: Selection of CourseSites and Adobe Captivate.

**Commence development**: Graphical user interface and 1st learning object.

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LMS deal breaker: Considerable lag time when launching learning object (2 minutes and 30 seconds in total) would compromise student experience (Hohenstein, Khan, Canfield, Tung, & Cano, 2016).

**Impact on openness:** The decision to move to institution's LMS meant only students enrolled at the institution could gain access.

Hohenstein, J., Khan, H., Canfield, K., Tung, S., & Cano, R. P. (2016). Shorter Wait Times: The Effects of Various Loading Screens on Perceived Performance. Paper presented at the CHI Conference Extended Abstracts on Human Factors in Computing Systems, San Jose, California, USA.

**Impact on development:** Items copied from CourseSites into Blackboard Learn did not render correctly and resulted in manual recoding of the graphical user interface.

**Impact on badges:** Blackboard Achievements building block not enabled hence adaptive release rules were applied to 14 graded activities.





#### **METHODS AGILE PROJECT MANAGEMENT**

In order to minimise risk of failure and maximise success, the project adopted an agile design and development process, that allowed for flexibility in addressing issues as they arose (Karlesky & Voord, 2008).



Karlesky, M., & Voord, M. V. (2008). Agile Project Management (or, Burning Your Gantt Charts). Paper presented at the Embedded Systems Conference, Boston.

#### **PLATFORM EVALUATION**

The authoring tool and hosting platform were considered driving factors that would determine to what extent the project goals would be achieved.

LMS

\$ Cost



Ease of student enrolment

Administration of badges and SCORM compliance

#### Learning objects



Mobile compatibility (HTML5 output)

COOC

7%

achieved

all

badges

Custom interactivities

# OUTCOMES

Compromise on openness

Corporate Open Online Course (Pilli, 2016) Pilli, O. (2016). A Taxonomy of Massive Open Online Courses. Contemporary Educational Technology, 7(3), 223-240.

MOOC

Refreshed my skills and knowledge.

**Over 50%** accessed the nortal

50%

25% attempted graded activities

Learnt what to expect from studying science at university.

~250 new science students

