**Rethinking blackboard: Teaching models for interactive learning**

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## Abstract

This paper considers alternative methods of teaching modules within the Blackboard delivery format demonstrating an interactive learning tool in a web based learning environment. We explore ways to go beyond simply training students in the use of digital tools and instead investigated an experiential approach to interactive learning. We adopted a content management systems (CMS) approach to transform teachers into facilitators for meaningful student engagement and the development of critical, creative, and ethical behaviour (Morellato, 2014, p. 185). Our prototype links Blackboard delivery into Cloud based learning. Our goal was to create an interactive platform in which students can share group work, while preserving the student's own personal creations for future projects as e-portfolios to be shared with others, including perspective employers. The findings suggest that we have created a strong, student-focussed conceptual tool. Our conclusions and recommendations point to further areas of research and development required before our prototype is ready to be applied across Hospitality and Tourism education.

**Keywords:** Interactive Learning, e:portfolios, Digital Competence, Learning Management Systems, Cloud based learning, Agile Learning

## Introduction

This paper considers alternative methods of teaching modules within the Blackboard delivery format. This is an exercise in prototype design. We explored ways Blackboard can be reconfigured to create an interactive learning tool in a web based learning environment. The broader purpose of this research was the improvement of digital competence in education curricula. Our model was designed to be use as part of the delivery of an applied event management paper with team focussed assessments.

A CMS prototype was developed as a Centre for Learning and Teaching project at AUT University. We explored ways to go beyond simply training students in the use of digital tools and instead investigated an experiential approach to interactive learning. We questioned whether the adoption of content management systems (CMS) , might transform teachers into facilitators for meaningful student engagement and the development of critical, creative, and ethical behaviour (Morellato, 2014, p. 185).

We will describe how we developed a CMS prototype that interfaces Adobe Captivate 8 with Blackboard to create a web based learning environment that is easy to use, fun and Cloud driven. The interactive prototype offers an interactive platform that preserves student's own personal creations for future projects. The prototype contains an e-portfolio platform that is able to be shared with others, including perspective employers. We offer an example of our prototype, suggest issues of design limitations, and point to further research and development requirements before it is ready to be implemented in Hospitality and Tourism education.

## Literature review

It is clear that engaging teams of students can lead to deeper understanding of academic content in applied courses (Boud, Cohen, & Sampson, 2014; Michaelsen, Sweet, & Parmelee, 2011; Prince, 2004 ). Learning management system (LMS) are widely used for Internet based

education in most of tertiary level of educational providers over the last two decades. AUT University has been using Blackboard, which is globally one of two most popular LMS systems, alongside Moodle, used in academia.

Traditional LMS, including both Blackboard and Moodle, have not been updated to be compatible with current digital technologies and social media technologies. For example Blackboard, although it has been offering a strong platform for communication and sharing content, there has been a number of on-going drawbacks in text editors, discussion board and mobile environments etc. Moreover, embedding other applications and systems within the blackboard is difficult do to the inflexibility of the system (Carvalho, Areal, & Silva, 2011).

Two learning methodologies have identified valuable adaptations to address these challenges: the 'Cloud computing environment' and the 'Project Management System (PMS)' based on the agile Teaching / Learning Methodology (ATLM) (Chun, 2004). Cloud computing has proven to have three main advantages over LMS: cost effectiveness in implementing hardware, software etc, flexibility and accessibility in an educational institution (Chandran & Kempegowda, 2010; Rao, Sasidhar, & Sathyendra Kumar, 2012).

Blackboard released a cloud version in 2014, although its services remain limited. Currently, many commercial applications have been developed that use various project management systems (PMS) aimed at agility, enhancing communication between teams and, the effectiveness and transparency of workflow including; Basecamp (www.basecamp.com) a PMS in rising popularity, which is compatible in cloud-based environments and, other systems such as Google drive.

## Methodology

This pilot project developed a digital learning resource to enhance students' engagement with core dimensions of event management theory and production practice by employing an interactive visual environment that frames course content and delivery.

The project student focussed- the student team, comprised of specialists in three knowledge areas (visual design, IT and Blackboard), was chosen to work with an academic mentor skilled at delivering the course central to the case study. The academic mentor became their 'student' with specialists from AUT's specialist learning and development unit who provided advice and resources. We recognised all four skills were required to research and develop the prototype and the students as 'end users' needed to be at the development core.

By combining skills, we have been able to build a nine step course delivery model as a prototype that we find interactive and visually appealing. We have been in consultation with students, academics and industry professionals who have informed the results and recommendations of our pilot project. A limitation of this study is that the testing of this prototype in the classroom has not yet been implemented due to the need of HTML applications in place of Adobe Captivate. Adobe Captivate did not prove to be a tool with the capacity to 'enliven' the Blackboard environment by creating an easy to navigate portal to collect student's documents in a dynamic and interactive interface.

## Results

Our proposed e-learning class was a first step in creating a hybrid e-learning system towards the next generation e-learning platform. This platform, embedding Blackboard with Cloud technology has potential to keep pace with advancements in current digital and social media

technologies. The new approach to Blackboard has potential benefits for both teachers and students by enabling working in a flexible environment. The site is intended as a visual navigation tool that collects individual and team documents in one place that are easy to collate. The site creates a class-based platform through which the lecturer can assist the teams and at the same time provides a fun and logical learning experience for the students, plus authentic assessment. The outcomes are professional documents that can be added into the students' e-portfolios. The prototype is intended as a template for other team based papers and links into Blackboard assessment tools. This is also seen as a useful concept to further develop for online courses.

## Discussion

This project has offered the team to look deeply into student engagement in Blackboard learning and find ways in which the learning experience can be more interactive and team work more fun. From colleague and student verbal feedback this model has appeal. If we are able to develop further the interactive tool it could have open access so that the prototype can be developed within a larger community. We feel that this tool could be developed further for online learning and the delivery of practical papers offered in other faculties and at other institutions.

We sought further development of the prototype by seeking advice from Game developers who have knowledge of software in development that we had not yet considered. The current prototype does not have all of the fluid graphics details that we had hoped could be achieved. We had the opportunity to share our concept with game developers in San Francisco and their expertise had helped us through some technical glitches to assist in the further development of a working model that can serve across disciplines as an interactive teaching tool suited for applied courses that require building effective teams. It was suggested that Captivate will always limit the creative flexibility of this model and that HTML applied to this concept would create a far more valuable tool.  For student engagement and curiosity the site should start as a blank screen and build as the students engage in their learning activities. We are aware of the time and money that could be spent on this project to create a conceptually stunning working model.

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