

## Painting over the Blackboard – Customisation of a Proprietary VLE

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### Context

**Discipline/Course/Subject area:** School of Architecture and Landscape

**Institution:** Kingston University

**Impact:** The practice was introduced:

- within a course unit/module
- across a degree programme/s
- across a faculty/school/ group of departments

**Length of time project has been running:** 2.5 years

**No. of students:** 300-500

**Level/Year of students:** Undergraduate and Postgraduate

**No. of staff involved:** 3-8

### Summary of Case Study

Working with a proprietary Virtual Learning Environment (VLE) can prove problematic if the generic nature of the VLE doesn't suit the individual requirements of a course. This paper will demonstrate how a proprietary VLE has been customised, providing a holistic structure and interface which is better able to support the pedagogic requirements of an Architecture school.

**Key Words:** Virtual Learning Environment, Blackboard, Blended Learning, E-Learning

### Key Points of Good Practice

- Educational technology used to support and supplement existing and developing good teaching practice.
- Customising a proprietary VLE to suit the pedagogic requirements of a course and school.
- Reconfiguring Blackboard for a more holistic approach.

## Description of Implementation

### Background

The School of Architecture and Landscape at Kingston University, London offers professionally accredited courses in the fields of architecture and landscape architecture, as well as a number of Masters courses.

Kingston University has adopted the proprietary software Blackboard for its Virtual Learning Environment (VLE). The University's agenda of quality enhancement through blended learning requires at least a basic engagement with this VLE for all courses, and there is a great deal of potential for an enhanced pedagogic strategy through the use of blended learning. However, the infrastructure and interface of a VLE can hinder the uptake of the technology.

### Disadvantages of Blackboard for architecture courses

- Blackboard is predicated on a modular course structure, whereas the design studio project work is sometimes spread across several, separate modules.
- The focus on separate modules feels fragmented, whereas an architecture course operates more holistically, with a synthesis between modules.
- All/most modules in architecture courses are core, and the year cohort needs to be managed as a whole, and addressed about issues which span several modules.
- The graphic presentation of Blackboard is crude, whereas an architecture course should embody high quality visual material.
- The standard Blackboard set up does not provide a way to link sites together, which hinders navigation.

### Issues with Kingston's implementation of Blackboard

Kingston University had set up Blackboard to provide two types of sites:

- "Modules" which corresponded to the modules that students were enrolled in e.g. AR1010-History and Cultural Studies (these utilised Blackboard's "Courses").
- "Organisations" which corresponded to the Course or Field that a student was studying in e.g. BA (Hons) Architecture (these utilised Blackboard's "Organisations").

Students' Blackboard home pages show links to the course/field site and the sites for all of the modules in which they are enrolled. There was no site for the things that sit between these two scales: the year cohort has no site, nor does the design studio which has no singular modular entity but is comprised of a number of modules. There was no place for Studio Leaders to upload documents such as briefs, site plans, etc, as the design studio in each year spans across several modules, but these documents are

relevant to all design modules. This issue meant that the core teaching and learning activity for the course (the design studio) made very minimal use of the VLE, and where it was used, both staff and students found this process very difficult. Staff did not know where to put the documentation: students didn't know where to go to access this documentation.

Year Leaders were presented with the problem that they had no place to file documents or make announcements that were pertinent to the whole year. An announcement could be made to the whole course (containing three separate year cohorts) by using the Course Blackboard site, or an announcement could be made to all students enrolled on a particular module using the module's Blackboard site. However, most announcements related specifically to the year cohort, as did documentation such as timetables.

The only significant use of Blackboard within the course was by module leaders for the supporting (non-design) modules as the module Blackboard site could be used. Students seemed to benefit from this use, and were keen that their design modules were also supported in this way.

### **Customising Blackboard**

To address the above issues, a strategy for integrating blended learning more effectively into the pedagogical framework was required; educational technology should support and supplement existing and developing good practice (the limitations of the technology should not dictate and restrict the wider teaching and learning strategy).

The process of customising Blackboard was undertaken using the systems and tools within the software in a creative and unconventional manner to align more closely with the operation of the courses and the School. The changes that were required were identified as follows:

- A Blackboard site was required for each year cohort which could be used for year-wide announcements and documents.
- This site would contain an area for the design studio, which could be separated into different studio groups.
- Documentation for individual modules would all be located within this "year" site, removing the use of Blackboard "modules".
- Blackboard sites would be linked together to provide an easily navigable interface, similar to a website.
- Blackboard graphics would be customised.

We believed that this proposed revised structure for the VLE should support the course much more appropriately, and ought to encourage an increased use of the technology.

## **Technical issues**

The above strategy was discussed with the Education Technology team, who are responsible for supporting Blackboard within the institution. This raised a number of technical issues:

- Providing automatic access for students to the “year” sites was not possible due to the existing configuration of Blackboard and the Student Information Management software (SITS).
- Blackboard did not provide a way to link between sites in the manner of a simple website (without opening in a new window or nesting one blackboard window in another) and the Education Technology team were not able to provide a solution.
- Blackboard graphics could only be customised in a limited manner, with a restricted colour palette and font style.

Resolving some of these issues took several years, with work-arounds later replaced by solutions.

## **Access**

For the first year that the new format was used, students needed to self-register for the new “year” Blackboard sites, and until they had done this, links to these sites would not appear on their Blackboard home pages. In order to direct students to these new sites (to self-register on them) we needed the course site to contain links to all of the separate year sites, and then to provide a simple method for the self-registration.

For the second year, the configuration of Blackboard and SITS was modified, to allow the automatic generation of Year-based sites for every course in the University, with students having automatic access to these.

## **Linking Blackboard sites**

As Blackboard is web-based software it seemed that it should be possible to utilise the html protocol to make the target of a web-link replace the current web-page. The Blackboard online help forums were able to provide a solution to this issue; they advised that this issue could be resolved by typing the following at the end of the link address: “target=”\_top

## **Customising colours and text style**

The Education Technology team were able to advise on the use of html code in the Blackboard Menu to generate custom colours and text styles. Menu item names could be filled with html code to set a custom background colour, and simple html font code could be used to make the text in menu items bold, or to create different spacing between menu items (see Appendix 1 for details).

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The new “year” Blackboard sites (see screen shots in Appendix 2) were colour coded by year, and each site had a number of contents areas, accessed through the menu items running down the left of the page. Each module had its own area, as did the design studio which was then further subdivided by studio group. Students could now remain within this single Blackboard site, and easily navigate between their modules, without returning to their home page. Year-wide announcements greeted students upon entering this site, whether they concerned individual modules or the operation of the year as a whole. Year-wide information, resources, and discussion forums were all easily accessible.

### **Inducting staff and students**

As these revisions constituted a significant change to the previous Blackboard set-up we needed to ensure that both staff and students were adequately inducted into their use. Individual year cohorts were inducted into the new setup. For the first year of implementation this involved a demonstration of the self-registration.

Appointments with the module and studio teams were set up to induct them into the new set-up, and also to ensure that they knew how to carry out key, basic Blackboard activities, such as making an announcement and uploading files. They all reported that they found it very clear where they were meant to file information for their students, how their students would access this information, and that navigation was unproblematic.

### **Evaluating and refining**

The new set-up was evaluated by staff using their annual Module Review process which required a commentary on Blended Learning. The module and course logs also incorporated student feedback from Module Evaluation Questionnaires. Both staff and students found using this new interface more straightforward, which was evidenced both by their feedback, and by a more significant uptake in the use of the system by all parties. Most importantly, the work of the design studio modules was supported by Blackboard, with briefs and shared digital resources easily accessible. The facility to make year-wide announcements also greatly improved the communication of key information to students.

Following the first year of implementation, minor adjustments were made in the graphical design of the Blackboard sites and in the arrangement of information within the sites. The most significant revision was that this strategy should be expanded to cover the whole school, rather than just the BA (Hons) Architecture. The sites for the other courses were re-designed with this new structure and graphical style. As part of this development, a new Blackboard site for the whole School was created, which all students in the School automatically had access to. This allowed the School as a whole to have an identity within Blackboard, allowed school wide announcements, and

a place to upload school wide resources. In 2008/09 the School undertook a project which spanned across all years of the BA and Diploma courses; the new Blackboard site facilitated this project.

## Conclusion

The re-designed structure, navigation method and graphical style allowed the new Blackboard interface to operate much more like a web-site, increasing ease of navigation due to the familiarity of most users with the internet. While still using Blackboard's underlying tools the end result looked nothing like a typical Blackboard interface. While the core Blackboard functionality is still there, underneath it all, its inherent clumsiness (both graphical and navigational) is now largely overcome. The end result is a much more fit for purpose tool, which is far more appropriate for the pedagogy of the courses within the school.

This project was achieved without intensive input from "e-developers", and without the need for creating an alternative VLE technology. The task was performed using the tools at hand and only required a small amount of technical expertise. The control over the development of this resource remains in the hands of the people who teach the course. This is a sustainable solution which allows the VLE to be continually developed and refined so that it can always align with the pedagogy of the teaching it is supporting.

## Perceived Benefits

### *For Students...*

- Easier navigation of VLE – it is clear where to find key material and information.
- Core activity (design studio) is now supported by VLE.
- Better communication using year-wide announcements.

### *For Teaching/Support Staff...*

- Easier navigation of VLE – it is clear where to put key material and information.
- Core activity (design studio) is now supported by VLE.
- Better communication using year-wide announcements.
- More potential for using blended learning strategies as VLE is more accessible.

## Issues/Challenges

### *For Students...*

#### **Access to Blackboard**

Students who are debtors to the university (including those owing small library fines) do not have access to all university ICT systems, which includes Blackboard. Therefore,

the more that Blackboard is used, the more that these students suffer due to lack of information and critical resources.

### ***For Teaching/Support Staff...***

#### **Access to Blackboard**

Access to Blackboard for part-time studio tutors is an issue. New staff members do not have any access to the university ICT systems until they are properly processed by HR. Unfortunately this access is only resolved part way through first semester (or even later), making it difficult at first for these staff members to be properly inducted and impossible for them to use the VLE on their own at the beginning of the year.

Staff are not automatically provided access to the relevant Blackboard sites, so they must be manually added by another member of staff.

#### **Support**

When deviating from a standard use of a technical system, support becomes crucial. While some valuable support was provided by the university Blackboard support, their time is very limited. This puts more of an onus on staff to become familiar with the technology, to largely support themselves and to seek support from elsewhere (such as the Blackboard forum).

The constraints of the system should be challenged as it is important to maintain the principle that the technology should bend to the pedagogy, not the other way around.

### **Enablers that Helped the Project to Work**

Support from Kingston University's Educational Technology team, specifically Tony McNeill.

Support from Blackboard help forums: <http://discussions.blackboard.com/forums/>

### **Details of project evaluation**

- Evaluated by staff using annual Module Review process which required a commentary on Blended Learning.
- Module and course logs incorporated student feedback from Module Evaluation Questionnaires.
- Both staff and students found using this new interface more straightforward, which was evidenced both by their feedback, and by a more significant uptake in the use of the system by all parties.

### **Possible improvements/enhancements**

Discussed above.

## Points of advice for others who may wish to replicate the techniques used

The design of a strategy for the customisation of a VLE to suit a course or School needs to involve staff members who understand the pedagogic strategy of the course. This process needs to be seen as part of the pedagogic development of a course, and not merely as a technical problem to be solved.

## FURTHER READING

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## APPENDIX 1 – Hints & Tips on Customising Colours and Text Style

- To link from one Blackboard site to another (without opening in a new window or nesting one Blackboard window in another), type the following at the end of the link address:

`"target="_top`

- To make text in a menu item bold, insert `<b>` before the text.
- To make an additional line space between menu items add `<br>` before the menu item text.
- To make the menu background a custom colour, create a menu item using the +Content Area tool with the following text inserted in the content area name field (ensure guest and observer access enabled):

`<style>body{background-color:#AE9E88;}</style>`

The code after "color:" is the custom colour – to find the code for your colour use web authoring software such as Dreamweaver – choose a colour and then copy the code from the colour box.

- To use the true type font style (which usually presents as courier and small) in a menu item insert `<tt>` before the text.
- To make the occurrences of the true type font a different colour to the other text, create a menu item using the +Content Area tool with the following text inserted in the content area name field (ensure guest and observer access enabled):

`<!--1--><style>tt{color:white;}</style>`

Note: any custom colour can be inserted here; `<small>` can be used instead of `<tt>` to create small, regular style font; different browsers will display the fonts differently – check your site in several standard browsers

- To indent text in a menu item a number of spaces cannot be inserted as browsers compress these to a single space. Instead use `&#160` for each space required.

## Appendix 2

### Examples of customised Blackboard interface

The screenshot displays a customised Blackboard interface. At the top, a navigation bar includes links for StudySpace, Art & Design History, Printmaking, Photography, Moving Image, Student Support, and One Community. A left-hand navigation menu lists various categories: Announcements, Landscape, Architecture (with sub-links for first year, second year, third year, and diploma), Postgrad Options (with sub-links ARM508, ARM509, ARM603, ARM610, and ARM812), School Staff, Discussion Board, Vertical Project, Green Grid Lecture Series, Handbooks, Information, External Links, and Digital Media. The main content area is titled 'ARCHITECTURE & LANDSCAPE (A) (AR5000-A TCYR) > ANNOUNCEMENTS'. It features a 'VIEW TODAY' button and tabs for 'VIEW LAST 7 DAYS', 'VIEW LAST 30 DAYS', and 'VIEW ALL'. A date range 'March 18, 2010 - March 25, 2010' is displayed. Three announcements are visible:

- Wed, Mar 17, 2010 -- Win a Faculty Award and £100!** (Posted by: JOANNA BAILEY)  
Have you been involved in supporting other students learning within your Studio, or across the Year, Course, School or Faculty? This may be through studio or coursework, group work, peer mentoring or other activities. If so, please consider applying for the Faculty Peer Mentor of the Year Award.  
**Applications need to be submitted by Thursday 26th March.** The winner of The Faculty Peer Mentor of the Year Award will receive £100 and you will be able to note this award on your CV.  
The application form is available on StudentSpace <http://lms.kingston.ac.uk/webapps/portal/frameset.jsp> and to discuss further please email [j.gay@kingston.ac.uk](mailto:j.gay@kingston.ac.uk) or contact the Faculty Student Support Centre.
- Thu, Jan 28, 2010 -- DMW2 Opening hours** (Posted by: MATTHEW MCCONNELL)  
Dear Students  
Please note that DMW2 will now be open until 9pm every Wednesday and Thursday.  
Regards  
Matthew McConnell
- Sat, Oct 10, 2009 -- Digimap - Current and Historic Maps** (Posted by: ELEANOR SUESS)  
To obtain current and historical ordnance survey maps of your sites, you need to use Digimap: <http://edina.ac.uk/digimap/>. If you do have not already registered with digimap you will need to do so to use this resource. This takes a couple of days to process.  
Use the " Ordnance Survey collection" to obtain current maps. "Carto" allows you to download a PDF file. "Download Data Services" and then "MasterMap Download" allows you to download MasterMap files which can be converted for use in CAD software. These files can be converted using InterPOSe software, which is free for students and available at:

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