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OU Mobile VLE: extending the reach of studying through the mobile web

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Abstract

This poster illustrates the enhancement of the 'OU Mobile VLE', originally delivered through highly-customised Moodle v1.9, through to release of a more standardised approach for Moodle 2.x. This case study builds on student feedback, both unsolicited and in student surveys. Combining with usage analysis, key features were refined and optimised for delivery and contribution via the mobile web.

Support for distance education requires more narrative, signposting and scaffolding of the learning design to be available. A package of discrete resources and activities structured through a 'study planner' approach, coupled with 'alternative formats' covers the on/offline blend. Formative self-assessment was extended – from reflection in course texts through to simple quiz question types.

Keywords

Mobile VLE, mobile web, Moodle 2.x, distance learning, strategy, mainstreaming.

Enhancing existing provision

The OU has been tracking mobile use since 2006 to revise the student portal – with more significant usage and expectations arising from 2009. In a corresponding timeframe, the OU had been moving more of our teaching material online, customising our own Moodle VLE and gradually introducing an increasing range of e-learning activities, according to blended learning design as appropriate – approaches outlined by Kukulska-Hulme & Jones (2011). At a later stage in this Moodle implementation, a 'beta' version mobile-optimised interface was released and refined over a number of development cycles running from March 2010. Direct student feedback was elicited during this period, via online surveys to establish expectations, priority features for development and later on, an evaluation of the interface – a process outlined by Thomas (2010, Spring).

A drive to provide a user experience sufficiently consistent with the desktop was followed – making use of the central 'study planner' route through the learning journey, and providing a 'launchpad' view to quickly gain an overview of current activity, messages and tasks to complete. This work took place alongside other resource and app prototyping, as illustrated in Thomas (2010). Review of work in related areas led us to confirm that we couldn't follow an app-based strategy for core services, at scale, with uncertainty then around new platforms and changing markets. The OU needs to be device-agnostic in the mobile space, responding to bring-your-own-device [BYOD] models in a distance education environment. Apps or simpler text-based modes previously encountered were not as suitable for an online narrative, embedded and signposted materials. Other approaches favour a discrete, modular and tool-driven structure better suited for some face-to-face mediation.

With the advent of an accelerated development programme to introduce Moodle 2.x, reconfigure and upgrade a number of modules - alongside the intention to standardise rather than customise - the mobile approach was also revisited. Ongoing research with student and practitioner input validated the central designed path of the 'study planner', and this time desktop and mobile (and tablet) interfaces were revised simultaneously – with mobile use informing some key navigation decisions. Following earlier work, a number of principles were refined:

- Delivery via mobile web – to better provide for the range of technologies OU students use, incl. HTML5;
- Designing for distance learning – similar to desktop provision embedding discrete resources and activities;
- Contribution and collaboration – providing opportunities to do more than passively consume and browse.

Design, development and testing

As part of the approach taken across all Moodle VLE interfaces and modules, a design, usability and accessibility review process took place prior to development on Moodle 2.x, starting in October 2010. To continue to support students in "keeping up with their studies" and provide appropriate signposting to activities, resources and forums (in particular) - the prior 'launchpad' approach was retained along with the consistency

provided through the central ‘study planner’ and progress tick-boxes. This approach was validated by user testing of wireframes and prototypes, with key stages noted by blog posts on Mobile Learner Support (2012).

Extending mobile learner support

Taking advantage of a concerted development period, including significant code refactoring, it was also decided as part of a sustainable strategy to ultimately mainstream mobile delivery into the different features and project teams. As such, mobile access was better supported through Moodle 2.x renderers and styled themes, with individual module improvements maximising the use of the available screen size; where possible bridging the common experience from the desktop, with behaviours consistent with smart/touch classes of mobile device.

Toolset of online activities

Specific enhancements for Moodle 2.x include better Forum threading layout, posting and replying. Reliance on mobile plain text editing meant that initially only blog commenting could be supported and more complex wiki structures were made read-only so as to avoid unintentional corruption of styles/layouts. Improved navigation and delivery of curriculum web content was followed by gradual inclusion of alternative formats, including PDF and eBook options. Simple quizzes are now available to use for the first time, comprising: multiple choice, list selections and simple text box answers, as well as question types using audiovisual playback.

Support for a wide range of user experiences

The Mobile VLE is device-agnostic, with higher-end devices able to access a tabbed view of key features, while legacy devices with simpler web browsers can get a read-only overview of their activities on the ‘launchpad’, as seen in Figure 1. As courses transition to the new VLE, mobile usage is steadily increasing beyond 18K users, and we have an established platform for curriculum teams to build more mobile learning opportunities upon. Thin-client or ‘shell’ app approaches will be considered for the future, incorporating device-native functions.



Figure 1: OU Mobile VLE demonstrating launchpad, study planner and quiz

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