Mobile media apps for Moodle

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Abstract

Recent advances in mobile multimedia technology have brought about fundamental changes to both education and entertainment. Institutions are now grappling with ways to bridge existing course management systems (CMS) with mobile technologies using native mobile apps as well as web apps (Daniels, 2012). This poster demonstration will introduce a suite of mobile apps that interact with specific Moodle CMS modules to reinforce oral production activities for language learning purposes. The suite includes a VideoBoard app, a VoiceShadowing app and a SlideShow app. The VoiceBoard app allows learners to record video or audio on a mobile device and to submit the media directly to a

'VideoBoard' module within a Moodle course. Using the VoiceShadowing app, learners can simultaneously listen to sample target language audio files, record their 'shadowed' speech and upload their recording to the Moodle 'VoiceShadow' module. Finally the SlideShow app provides a simple mobile interface for learners to capture images and recorded captions, which are then automatically converted to an online slideshow in Moodle. These mobile apps are currently available on the Apple App Store for free and require the installation of accompanying Moodle modules. Development of an Android-based version of each app is underway.

Keywords

Multimedia, Moodle, mobile apps.

Mobile apps and Moodle

Moodle is a viable platform for deploying mobile learning, either though the development of web-based apps or native mobile apps. Moodle 2.2 core now ships with a standard mobile theme that is custom-designed for users accessing courses via a mobile device. Using the mobile theme, the layout of the Moodle course content and the navigation buttons fit neatly within smaller mobile screens. In addition, there are a number of mobile applications available for iOS and Android devices to support mobile users accessing Moodle. The official My Moodle app is a modest attempt to create a more mobile-friendly Moodle environment, but as mobile usage continues to escalate, the need to develop custom mobile apps that augment Moodle also intensifies, perhaps much in the same way that the development of custom plugins and modules has evolved over the years. The main focus of this poster session is to demonstrate how a suite of custom mobile media apps were designed to work with Moodle to better support the integration of Moodle, mobiles, multimedia and language learning. The 3 apps, the VideoBoard app, the VoiceShadowing app and the SlideShow app were created to assist learners to seamlessly upload images,

audio or video from a mobile device to a Moodle course. Each app is designed to supplement a customized Moodle activity module and requires the installation of an accompanying module. The customized Moodle modules can be downloaded from moodlemodules.netcourse.org and can be used with or without the mobile apps. The apps are currently available on Apple App Store and Android-based app development is proceeding.

Moodle VideoBoard

VideoBoard Module

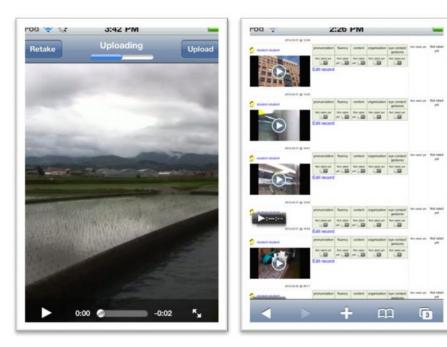
Video projects (Sildus, 2006), student documentaries (Yamak, 2008), and drama production (Nikitina, 2011) are just a few examples of how learner generated media is used to construct authentic learning environments. More recently, with the advent of video-enabled mobile devices, learners are able to effortlessly capture and share media online.

The VideoBoard is a simple module that allows students to upload short audio or video clips to a course 'video board'. The VideoBoard design encourages both self-evaluation and peer evaluation of learner produced content. Video can be recorded online, uploaded from a previously recorded clip, or captured on a mobile device

to be uploaded directly to Moodle. Video files uploaded in different formats are automatically converted on the server to an MPEG4 format using FFmpeg.

Mobile VideoBoard App

The VideoBoard mobile app, shown in figures 1-2, supports video upload from a mobile device to the VideoBoard module. Using this app, video can be recorded directly from a mobile device and sent to a VideoBoard within any online course. The recorded video is automatically resized and compressed to a web-friendly format on the server.



Figures 1-2: VideoBoard mobile app & Moodle VideoBoard module

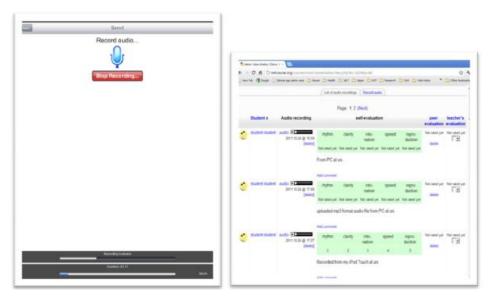
Moodle VoiceShadow

VoiceShadowing Module

A number of studies have evaluated the effectiveness of voice shadowing as a language acquisition tool (Murphey, 2001; McMillan, 2008). Voice shadowing is a language practice activity where a learner listens to a target language and attempts to repeat or 'shadow' the language. Using the Moodle VoiceShadow app, target language is uploaded by the instructor as an audio file to the Moodle VoiceShadow activity. Learners can then access the activity to simultaneously listen to the audio file and record their own speech. The student-recorded speech is uploaded to Moodle for teacher- as well as self-assessment of the target language.

Mobile VoiceShadowing App

The mobile VoiceShadow app allows learners to practice voice shadowing with a mobile device using the built-in audio player and audio recorder. The audio files recorded on the mobile device are submitted directly to the appropriate voice shadowing activity within a Moodle course as shown in figures 3-4.



Figures 3-4: VoiceShadow mobile app & Moodle VoiceShadow module

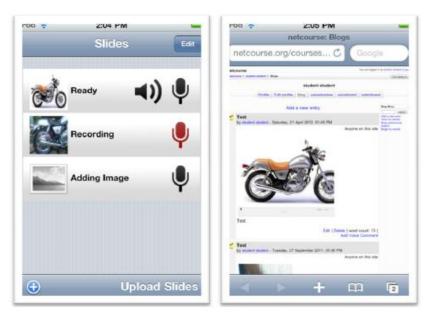
Moodle SlideShow

SlideShow Module

An important component to instruction is the ability to bring authentic and relevant content from outside into the classroom (Chen & Brown, 2011). The slideshow module was developed to simplify the process of synching voice narrations with images in order to create an online slideshow. A simple web-based user interface is used to select images and to record audio for each image or frame. A narrated slideshow is automatically generated as an HTML5 package on the server-side. Images are resized and audio is synched with each slide using server-side scripts, thus maintaining a simple and clean user interface, an important element in a language learning environment. Learners can also attach a set of multiple choice questions to their presentation and can post comments to other users' uploaded presentations. This module is used for presentation speaking practice, as a shared presentation 'board', or as a portfolio where uploaded presentations are shared within a particular course.

Mobile SlideShow App

The mobile slideshow app, shown in figures 5-6, was designed to help bring the real world into the classroom. Using the mobile slideshow app, learners are able to capture images from outside the classroom to share with other classmates and to support authentic classroom interaction.



Figures 5-6: Slideshow mobile app & Moodle Slideshow module

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