Integration between PebblePad and your institution
LMS/VLE – what you need to know.

**NOTE:** The terms LMS (Learning Management System) and VLE (Virtual Learning Environment) are used interchangeably in different regions to describe learning systems such as Blackboard, Moodle, Canvas, etc. For simplicity, only the term LMS will be used in this document.

An overview of the basics

When systems work together it makes life more straightforward and that’s why we believe open standards are an important part of the elearning world. Learning Tools Interoperability (LTI) is possibly the most significant standard to emerge for elearning systems and, as you might expect, we've embraced this standard in PebblePad.

PebblePad currently supports LTI 1.0, 1.1 and 2.0 and as new versions of the standard emerge we’ll move forward with those to make sure we can integrate in ever more meaningful ways.

PebblePads LTI integration supports the following capabilities:

- Single Sign On from other systems to PebblePad.
- The creation of launch links within learning content to Pebble+ and ATLAS.
- The ability to create workspaces from subject/course sites via the workspace wizard. This automatically synchronises membership from the LMS site and includes role details such as tutor and student.
- Transfer of course grades from a workspace to the LMS grade centre.
- Link directly to PebblePad templates or workbooks from hyperlinks in LMS learning content.

PebblePad supports full-capability LTI integration with:

- Blackboard (LTI 1.1 via Basic LTI tools block)
- Canvas
- D2L Brightspace (LTI 1.1)
- Moodle (LTI 1.0 and 2.0)
- Sakai (LTI 1.1)
A bit more detail

Each LMS has a distinct interface and the one LMS can be configured differently by different customer institutions. As a result, the steps involved in using the LTI integration with PebblePad will vary across most customer sites. However, the functionality is largely the same and this is outlined in more detail below.

The focus here is on the teacher and student experience of the integration. Information about the setup and configuration of the integration is available in the Technical Documentation section of the PebblePad Community Site.

Single Sign On (SSO)

SSO means that the user does not need to re-enter their login credentials, or enter different login credentials, when moving from the LMS to PebblePad. The LMS ‘knows’ who the individual is and when they click a link to go to PebblePad that information is passed through so that the user is also ‘known’ in PebblePad.

Links to both Pebble+ and to ATLAS can be added to LMS sites. Depending upon how the LTI integration is configured, these links can be added at various levels within the LMS but are perhaps most common at the subject/course level (a subject/course in the LMS will map onto a workspace in ATLAS).

A Pebble+ link will take the user through to the home page of their own Pebble+ account. **Note that** if the user does not yet have a Pebble+ account, the LTI integration will create an account for them when they click on the Pebble+ link for the first time.

An ATLAS link will take the user through to their ATLAS dashboard or, if an ATLAS workspace has been created via the ATLAS link (see Create Synchronised Workspaces below), through to the associated workspace.

Create Synchronised Workspaces

When an Instructor clicks on a **new** ATLAS link in a subject/course site in the LMS they will be taken to the ATLAS workspace creation wizard:
Trouble Shooting:
If the Instructor is taken to their ATLAS dashboard when they click on the ATLAS link, it means that they do not have the necessary permissions in ATLAS to create workspaces. They must be a Manager or Creator in at least one ATLAS Region. This permission will need to be assigned in ATLAS by an Administrator.

Note that the new workspace will automatically be added to the Region in which the Instructor has Manager or Creator permissions. If the Instructor has these permissions in more than one Region they will be asked to select the Region that the new workspace must belong to.

Select Continue and the next page of the wizard will show some Basic and Advanced Settings and the Managers and Members that will be synchronised to the new workspace from the LMS site.

- The workspace name will include the LMS subject/course name.
- For some LMS integrations the workspace description will be the subject/course code.
- The integration defines the mapping between LMS roles and ATLAS roles so LMS instructors will be allocated to Lead Tutor, Tutor or Moderator accordingly.
• Students in the LMS site will become Members in the workspace and will appear in a ‘user group (Synchronised)’ tab.

Note that workspace membership will be synchronised every time an Instructor clicks on the ATLAS link in the LMS. If the link is not clicked within a 24-hour period, an automatic synchronisation will occur the following evening.

Only the Blackboard integration will support the creation of Sets in the ATLAS workspace from Blackboard Groups. For all other platforms Sets will need to be created separately within the ATLAS workspace on the Management > Sets page.

Transfer grades to the LMS

Grades added to submissions in a workspace created via the LTI link can be passed back to the LMS grade centre.

The grades are passed back when they are released to students in the ATLAS workspace. For some LMS platforms the grade column in the grade centre only becomes visible when the grades have been released.

Across the different LMS platforms there are some limitations on the capacity to transfer grades:
• Moodle, Blackboard and Sakai can only support a single grade column per workspace. If multiple grades need to be returned, multiple workspaces can be set up for the one subject/course OR grades can be exported from the ATLAS workspace and imported into the LMS.
• Canvas and D2L support the mapping of multiple assignments between the LMS and the ATLAS workspace and can, therefore, support the transfer of multiple grades (one per assignment).
• The grade format in the ATLAS workspace must match what the LMS will accept. This varies across platforms.

Add link to PebblePad template or workbook

Links to specific PebblePad resources (templates or workbooks) can be added into LMS content. This enables the student to click on the link, open the template or workbook, add responses, and save the work to their Pebble+ account, all without going into Pebble+ itself. This is an especially useful option when introducing students to PebblePad as it allows for the creation of PebblePad assets without having to move into the Pebble+ interface. When students go into Pebble+ at a later date they already have content in their asset store.

The process for adding a resource link is different for each LMS and so it is difficult to provide generic instructions. All involve editing the content for the subject/course, adding a resource/activity/assignment, giving it an appropriate name, and then selecting the content button that opens a modified version of the Pebble+ Resource store to enable the relevant resource to be selected.

Once selected and saved, students can click on the active link to open the resource and add responses.