

Moodle as an Enterprise LMS for Post-Secondary

Objective: outline moodle customization options to tailor the application to your specific use.

Our campus adopted moodle about 10 years ago and I've been one of our moodle site administrators since then so I'm going to talk about how we have set up moodle to meet our needs to give all of you an idea of what kind of options you have at your disposal if you were to start using the system.

POST SECONDARY CONTEXT

LARGE USER BASE AND TRAFFIC

CONTROLLED ENVIRONMENT

HUB OF CAMPUS DLE

- On of the really impressive things about Moodle is its flexibility of purpose and the scope of its use - there are nearly 200K 'registered' moodle sites in the world (meaning the number of actual sites is even higher.) And there are a huge variety of these ranging from K12, college, post secondary, workplace, and custom installations for specific purposes (indeed you often see individual instructors hosting moodles for their specific needs.)
- I'm going to talk a bit about the post-secondary context - that is using moodle as the enterprise LMS for a large institution. We have somewhere around 40K student FTEs per term and usually host 3000 credit courses per term (though this number has increased somewhat due to covid.) This translates to a very busy moodle site - I took a look at our traffic last night and we've had just over 750K user sessions in the past 7 days.
- Because it is an enterprise system, there need to be access controls and as much as possible, we tie into other university IT systems to do this: access is given via the central Identity and Access management (IAM) service, accounts are synced from the student information system (SIS), course enrollment lists are created automatically from the registration system. So the LMS must be correctly connected with the other campus enterprise IT systems, and compliant with all the server security protocols and standards - moodle facilitates all these linkages.
- We have also used the LMS to control access to a number of related e-learning tools that we provide in our digital learning environment (DLE). These include synchronous lecture tools like Zoom, an ePortfolio service, our custom Student Response system (SRS), and integrations with our google

- educational suite. More and more lately we've also been integrating 3rd party tools into our LMS via the Learning Tools Interoperability (LTI) standard which had been expanding the functionality we can provide.
- So given this context, we take advantage of a number of the wide range of customization options that moodle allows for and I'll talk about a few of those.

MOODLE SETUP

CUSTOM ROLES

DISTRIBUTED ADMINISTRATION

INSTALLING PLUGINS

CHANGE MANAGEMENT

- One of the big ones are the roles - the roles mapping from our university registration systems can all be specifically set in moodle based on what we need each different type of user to do. Moodle allows for any number of roles, each configurable down to a very fine level of detail. Almost every action that a user can take on the system is tied to a specific capability which can either be turned on or off for each of these roles that you create. In turn these can be customized for different course contexts and even for specific activities. Moodle provides default roles Teacher, Student, and Manager that make decent sense and should be adequate for many uses but over time we've tweaked and refined these a bit.
- We expanded from the base roles and even added a number of extra ones over time as different use cases have emerged and been requested by campus stakeholders. Some of these include tutors, a librarian level role, and some others.
- Another area where we've invested a fair bit of operational work is in the organization of courses. Moodle allows for course categories and for nesting of categories so we have set up a system of these categories that maps to the organizational structure of the campus. Eg. There is a faculty containing departments that contains courses - this allows us to give administrative or academic leaders in these units access to all the courses that are offered by their unit.
- A last couple of points I want to talk about here are not really about setup but more about all the other customization options for moodle beyond the core

- features. There is a plugin registry with nearly 2000 different functional tools you could add to your site. These can be very useful to extend the functionality of the application and we have adopted a fair number of them but it does sometimes come with a cost: as they are community maintained, their upgrade cycle may not match your own and bugs may not be addressed in a timely way. We have a few plugins that we need to upgrade every time we do a moodle upgrade so this is work that our in-house developers have to do each upgrade.
- This ties into how we handle moodle upgrades. When our campus moved to moodle from a commercial LMS just about 10 years ago, one selling point for the move at that time was that since it was open source we could build whatever tools we required without being constrained by what the vendor provided. So we did that initially - we made a fair number of core moodle code customizations. However over time we veered away from that strategy and have attempted to cut these back simply due to the costliness of upgrading. When we have a customization in our code and we go to try and install the latest moodle version, we have to have a developer go through and resolve any conflicts that come up because of our customization. The same goes for custom plugins we've added or have taken over the code for. More and more these days we're creating new functional pieces as external LTI tools, hosting them in our Learning management cloud space alongside our moodle as a way to cut down on this overhead.

USER SUPPORT

UP-TO-DATE DOCUMENTATION

LEVERAGE BUILT-IN TOOLS

ADD CUSTOMIZATIONS

- We often see 10K new students each fall term and we have new profs learning the system all the time. In the current environment, we've had an even greater uptake in system usage, and a greater use of the more advanced system features.
- To support this, we rely heavily on an in-depth, public-facing, current knowledge base. This sits at over 600 articles right now and updating this corpus of material is a definite time investment. The knowledge base is full text searchable and we've trained users on how to self-serve as much as possible.
- Moodle also provides a number of built-in tools:
 - User tours - the first time a user clicks on a page of every type, they get a walkthrough of the page features. They can re-watch the tour any time they want a refresher.
 - Installable language packs to switch the interface language for different users.
 - Customizable language strings allow you to edit the labels in the interface to provide clarity and/or to make the language specific to your site.
- Create custom tools where required - we found a lack of easy communication tools at the system-level so we have customized the default user dashboard to have in-place messages when we need to contact users with important information.