

An Overview of CPKN's New LMS

A Decade of Enhanced Learning through Collaboration

Introducing ILIAS

Our LMS is an open source project called ILIAS (German for "Integrated Learning, Information and Work Cooperation System). At its core, it supports learning content management (including SCORM 2004 compliance) and tools for collaboration, communication, evaluation and assessment.

This system was selected after a consultation process and needs assessment. Based on that assessment, it was clear the LMS would require collaborative tools, personal learning environments, and multiple facets for authentication. Overall, it would also need a well-designed learning and course management system that supports learning trees and competency maps. Our clients need a "complete solution".

Extending ILIAS

Since ILIAS is an open source project, there is significant opportunity to extend the functionality of each module. For our initial release debuting in 2015, we have 4 modules slated for upgrade:

Catalog Module

The Catalog Module is where learning trees and competency maps are defined, structured and pushed out to portals.

Class Module

The Class Module furnishes extending classroom functionality to line up with our client's needs.

Registration Module

The Registration Module will help streamline authentication, registration and assignment reducing the amount of time required to administer course registrations.

Payment Module

The Payment module will better provision usage and metadata on courses and support increased flexibility in the way courses can be consumed and shared.

Each module has an upgrade for both the management and reporting side.

Personal Desktop

A general characteristic of ILIAS is the concept of a Personal Desktop and Repository. While the Repository contains all content, courses, and other materials (structured in categories and described by metadata), the Personal Desktop is the individual workspace of each learner, author, tutor, and administrator. The Personal Desktop contains selected items from the repository (e.g. currently visited courses or an interesting forum) as well as certain tools like mail, tagging, a calendar and also e-portfolio and personal blogs.



Repository - Learning Content Management

Another important characteristic of ILIAS is the Repository. All learning content, as well as forums or chat rooms, tests and surveys, and plugged in virtual classrooms or other external tools are created, offered, and administrated in the Repository and its categories. As such, it is not necessary to build up courses for offering learning content. Access to all Repository items is granted by the role-based access control (RBAC) of ILIAS. The Repository is structured as a tree with a root node and multiple levels. Each Repository item is assigned to one node in the RBAC tree.

Communication and Cooperation

ILIAS supports different facets for communication such as internal messaging, chats, and forums. This furnishes channels of communication among departments and classes; the ability to share ideas and information; and on overall foundation of collaboration from course development to course consumption to course completion.

Learning Content / Authoring

ILIAS includes a full feature SCORM editor within the LMS that allows for authoring SCORM Learning Modules. It also includes:

- XML-based learning document format, exports to HTML, XML and SCORM
- SCORM 1.2 (Certified for SCORM-Conformance Level LMS-RTE3)
- SCORM 2004 (Certified as LMS for SCORM 2004 3rd Edition)
- AICC
- OpenOffice.org Import Tool (eLAIX)
- LaTeX-Support
- HTML Site Import
- Wiki
- File Management (all formats)

Authentication

Authentication, Users, and Roles consume a lot of management time with configuring and granting permissions to given learning objects. ILIAS streamlines this by plugging in directly to your authentication system. Whether authentication is a SOAP-based system, LDAP, or another technology, we are positioned and able to extend authentication to meet the needs of our specific clients and their requirements in a very granular form.



Some of the Benefits of ILIAS

- Allows users to create learning and teaching materials efficiently;
- Easy to learn and use;
- Fully conformant with e-learning standards like SCORM 1.2 and SCORM 2004;
- Access to learning materials and features are controlled precisely and flexibly;
- Includes integrated authoring tools for editing learning materials such as learning modules, wikis, and glossaries; and
- Using the powerful 'Test and Assessment', it enables users to offer online exams and assess learning progress.

Why Get Excited About ILIAS?

Beyond Courses

ILIAS goes far beyond the idea of learning being confined to courses. Rather, it can be seen as a type of library, providing learning and working materials at any location of the Repository. The tightly integrated tools have streamlined standard toolbars ensuring ease of system learnability. ILIAS was created by tutors and teachers and its further development is driven by its users. Innovations in the field of e-learning are quickly adopted – as a result, we can enjoy an up-to-date and powerful product.

Versatility

ILIAS is very versatile and works well in a blended learning environment. Online courses complement classes. Students download slides and scripts, discuss and collaborate online, and can even take exams.

Each client can choose how their organization's Repository is structured. We can choose to organize the learning resources along organizational or topic-based lines to fit your needs and create deep and nested structures. All resources, whether created within the system or imported or linked to, can be described with metadata. This means they can easily be found using the internal search.

Integrated Authoring Tools

ILIAS offers integrated tools for authoring learning modules, glossaries, and exercises. Teachers and learners can cooperatively author content online like a wiki. Teachers can create scenarios in which learners automatically get access to content after having satisfied specific preconditions. Course material can be organized using learning objectives. Based on test results, the learning resources are then recommended. This is a simple way to offer multiple learning paths for adaptive learning. The learning plan feature enables learning processes to be planned in detail.

The integrated "Test and Assessment" environment also makes it easy to create and administer online tests and exams that might serve only to access one's own learning progress or may be a proper exam. Test results may be used to trigger access to further materials for learners.

Communication

To stay in close contact with students, there is a variety of communication methods. You do not have to maintain lists of email addresses -- the LMS knows your participants. Forums can be used for topic-related discussions or to discuss organizational issues. Bulletin-boards or FAQs can be provided in a



forum. Forums are also excellent for didactical purposes; students can practice debating or take part in discussion based role plays. Real-time communication is furnished with an integrated chat tool.

Security Certifications and Compliance

Both our LMS (software) and our Network Operation Center (hardware) are security certified and comply with national and international standards relating to every aspect of information security.

Our LMS is security certified by NATO and used in NATO's high-security intranet as well as several national defense departments and armed forces. Our Network Operation Center is certified and complies rigidly with standards of SSAE 16, CSAE 3416, ISAE 3402 and Safe Harbor.

What does this mean?

Your data is important to us and we take data security and privacy very seriously. Rest assured, we have looked at every aspect and employed services that respect and conform to information security.

Availability and Accessibility

All of our LMS infrastructure resides in Canada and is connected via a nation-wide fibre line to reduce latency between requests. Our load balanced server infrastructure is designed to allow for multiple points of failure without causing outages. It also is structured to minimize the risk of downtime due to cyber-attacks, catastrophic hardware failure, and data loss.

What does this mean?

No matter where you are in Canada, our LMS will be there for you. From British Columbia to Ontario to Newfoundland, the courses you need can be consumed and exposed accurately, properly, and on time, every time. Data integrity is central to our methodology; we have taken extra precautions to ensure that your data will be there when you need it and will remain in your control - exposed only to those with proper credentials.