

Selecting a learning management system for ILRI

Iddo Dror






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ilri.org
better lives through livestock
ILRI is a member of the CGIAR Consortium

Box 30709, Nairobi 00100, Kenya
Phone: +254 20 422 3000
Fax: +254 20 422 3001
Email: ILRI-Kenya@cgiar.org

Box 5689, Addis Ababa, Ethiopia
Phone: +251 11 617 2000
Fax: +251 11 617 2001
Email: ILRI-Ethiopia@cgiar.org

Introduction

ILRI recently launched an initiative to provide partner organizations with more robust training offerings for the FEAST tool and methodology. In addition to revised classroom materials, we are also creating online and blended versions of the course. Thus far we have created a large amount of online content (videos, interactive e-Learning activities, quizzes, etc.) and now require an “LMS” (Learning Management System) capable of hosting the course and tracking learners’ progress and performance. In addition, we anticipated the need for other ILRI projects to invest more in online and blended learning solutions, so needed to find a LMS that could be used across many projects and content areas ILRI is involved with.

The market for LMS applications is extremely fragmented, with nearly a hundred commercial and open-source solutions offering different sets of features at different price points. Most of these solutions are tailored for a specific niche (K-12 schools, universities, corporate training – there are even LMS solutions designed specifically for training electrical engineers and airline pilots).

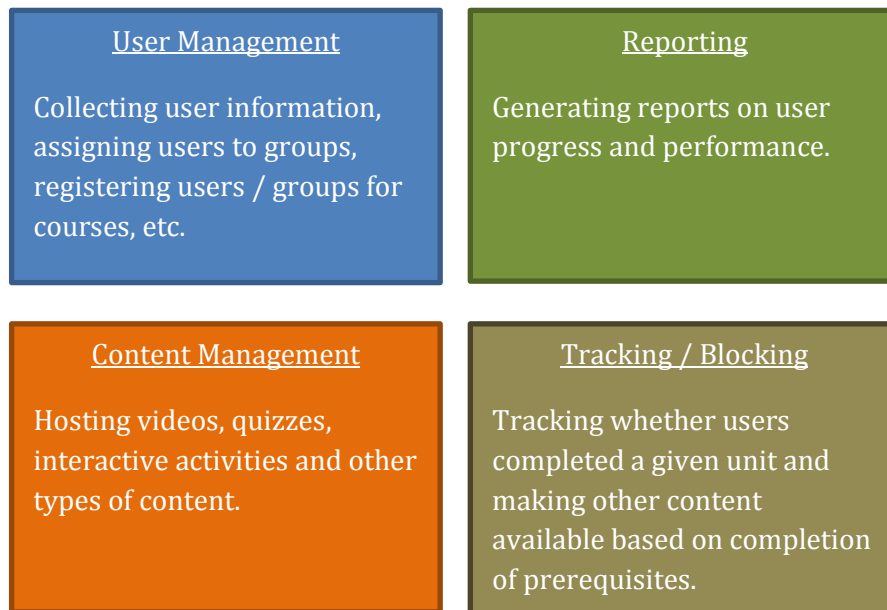
After an exhaustive review of available solutions, ILRI decided to partner with Sonata Learning (www.sonatalearning.com) and use Sonata’s proprietary solutions for both an LMS and an offline player, which together meet all of ILRI’s needs at very competitive rates. The following document will provide an analysis of available LMS solutions, step through how we arrived at this solution and provide an overview of the main functionalities of the Sonata LMS and offline player.

What is an LMS?

If we simply wanted to make our learning content available online, and did not care about tracking learners' progress/performance or controlling their access to materials (e.g., not allowing a user to access a course or lesson until they completed its prerequisites), then we could simply embed the videos, activities and quizzes in a conventional website.

However, if we want to track learners' progress and manage their access to courses, then we need a specialized web application known as a "Learning Management System" or LMS.

An LMS serves four main functions:



Different LMS solutions have different approaches and capabilities in each of these areas.

ILRI requirements

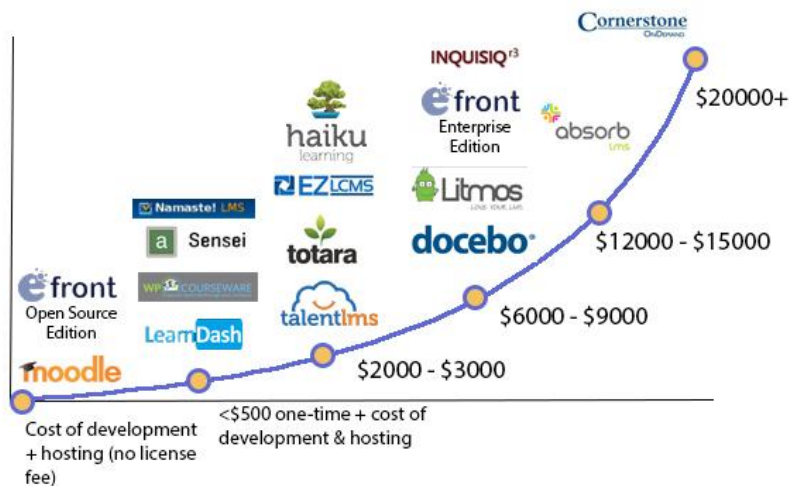
The original ILRI FEAST RFP/ToR simply called for a learning development contractor to “define technology requirements and process standards” without specifically outlining requirements for an LMS platform. As we subsequently worked together, we identified the following needs:

- Launch interactive eLearning activities and track user progress / results
- Modern, attractive, easy-to-navigate user interface
- Ability to deliver eLearning in classrooms without an Internet connection and report results to a common gradebook for reporting
- Track performance in several key objectives and relate to results of performance review surveys sent to class participants’ supervisors 3-12 months after the course
- Cost less than USD\$5,000/year for 500 registered users (\$10/user/year)

While we were unable to find a single off-the-shelf solution that addressed all of the above requirements, the requirements provided a framework for evaluating the trade-offs of one LMS solution versus another.

Overview of available LMS solutions

The market for LMS systems is extremely fragmented, with over 100 commercial and open source solutions available. During the early phase of the project, we conducted an extensive review of these solutions, ranging from “free” solutions such as Moodle and eFront Open Source Edition to top-of-the-line solutions aimed at major corporations such as Absorb and Cornerstone.



General categories of LMS solutions

- **“Free” Open Source Solutions** (e.g., Moodle, eFront Open Source Edition)

There are a few popular open source solutions available for no licensing fee, most notably Moodle. However, in all cases they had an inelegant UI that might pose a problem for ILRI’s class participants and proved quite difficult to customize. The fact that ILRI would have to assume responsibility for hosting these solutions was another drawback.

- **WordPress-Based Solutions** (e.g., LearnDash, WP Courseware, Namaste!, Sensei)
Several companies offer solutions based on the WordPress framework. While they all allow for a high degree of customization of the user experience, each had major limitations when it came to authoring courses and none of them natively support the SCORM standard for eLearning, meaning they would not be able to track learner progress/performance in activities or quizzes created with other applications.

- **Low-Cost “Light” Commercial Solutions** (e.g., TalentLMS, EZLMS, Totara, Litmos, Docebo)
There were several products in the “Light” LMS category that came close to meeting ILRI’s needs, though each had a major drawback that made the solution unattractive.

Even with an “NGO discount”, Litmos and Docebo were above ILRI’s price range and did not offer features commensurate with the cost. EZLMS was by far the most full-featured in terms of user management and reporting, but had an extremely dated and difficult-to-navigate user interface. Totara, a commercial adaptation of Moodle, also had a robust feature set but still had all of Moodle’s user interface issues (difficult to navigate, etc.).

TalentLMS seemed promising at first, especially with its API for WordPress integration, but while building a proof of concept lesson in the platform we encountered many frustrating limitations that reduced its appeal.

- **Enterprise-Class Solutions** (Blackboard, Absorb, Skillsoft, Cornerstone)

While many of these solutions offered both robust reporting and user management and a modern, elegant user interface, given that they started around USD\$6,000 per year for 500 learners and went as high as \$40,000 per year, ILRI deemed them too expensive. Attempts to negotiate a discount from the vendors went nowhere.

Rationale to select Sonata Learning LMS

Initial attempts to partner with vendors

ILRI and Sonata approached several of the “LMS Lite” vendors (TalentLMS, EZLMS), asking if they could implement a few customizations to better meet the organization’s unique requirements. While in several cases the companies’ sales staff agreed, as we worked with their developers it became clear that, given how ILRI was not looking to pay a premium, the vendors were (understandably) uninterested in customizing their product for what would be, by their standards, a small account.

Overall, the situation with ILRI’s search for an LMS had become quite frustrating. While ILRI wanted to provide a high-quality user experience, it was difficult to justify the cost of an enterprise-class system, especially since most of ILRI’s constituents lacked the bandwidth to directly access the LMS without the intermediary of an offline player.

The Sonata LMS

Even prior to partnering with ILRI, Sonata Learning had been developing its own proprietary LMS solution. ILRI’s frustrations with the LMS market were not unique, and Sonata Learning hoped that, by offering a solution with “Enterprise” features and a modern user interface at an “LMS Lite” price, they could make online learning programs more accessible for small and mid-size organizations (this being “small” and “mid-size” compared to large government agencies and multinational corporations).

Around the beginning of 2015, sufficient progress had been made on development of Sonata’s proprietary LMS that it became a qualitatively superior alternative to other solutions in its price range. After reviewing the product’s features, ILRI offered to serve as Sonata Learning’s partner for the software’s “Beta” release.





COURSES MESSAGES RESOURCES GROUPS TRANSCRIPT

INFORMATION DISCUSSIONS EVENTS & ASSIGNMENTS

Developing Livestock Feed Interventions Using the Feed Assessment Tool (FEAST)

REGISTER >



FORMAT

Registration: 2/3/2015 - 6/5/2015
Class Dates: N/A - N/A

Features of the Sonata LMS

Major points include:

- **Simple, clean, intuitive user interface** – The Sonata LMS offers a clean, elegant user interface and intuitive user experience inspired by modern web and mobile applications. It presents users with only the most important options at any given point, giving administrators the option to show or hide additional options as the courses require. By contrast, most of the lower-cost LMS platforms have outdated design reminiscent of the cluttered menus from the “Yahoo!” era of the Internet or late-90s desktop applications. These tended to be difficult to navigate, especially for novice users, and had a dated feel.
- **“Blended first” approach to delivery** - Where most inexpensive LMS platforms focus on the self-guided, online-only experience, the Sonata LMS is designed to let self-guided content complement classroom sessions or live instructor-led webinars. Among other features, it allows instructors to grant or restrict access to lessons in the LMS during a classroom training session and give scores for attendance and participation.
- **Integration of social learning** – The Sonata LMS integrates discussion forums into course content, to spark interaction between learners. It can require that users post to discussions in order to proceed with a course, then notifies them of responses.
- **Branding and sub-portals** – The Sonata LMS allows for the creation of “departments” and “program”, allowing for different units within organizations or different initiatives to have their own branded portals, with options to share or separate content for different audiences and set different preferences for each.
- **Ability to scale with the growth of ILRI programs** – The default configuration of the Sonata LMS allows for the quick setup and easy administration of basic online courses, but can allow for more advanced course design and management as the need arises (e.g., defining multi-course sequences, awarding credits for classes based on a common set of learning objectives / standards, certificates, etc.).
- **A unique approach to grading** – Graded interactions can be grouped into categories for reporting and weighting purposes. For instance, pre-assessment and post-assessment tests can be identified and reports generated to compare performance between the two. Different types of assignments can be scored as a group (e.g., all quizzes might be worth a combined total of 500 points, with score based on an average) or individually.
- **Reporting features** - With its well-organized database, the Sonata LMS can produce any report an organization may require and display them as attractive HTML5 graphs. As a beta partner, ILRI will have a hand in defining the standard reports and dashboards to suit its requirements.

Comparison with other “lite” LMS systems

A comparison of features between LMS systems somewhat misses the point, as so much comes down to execution, but to establish the Sonata LMS’ competitiveness:

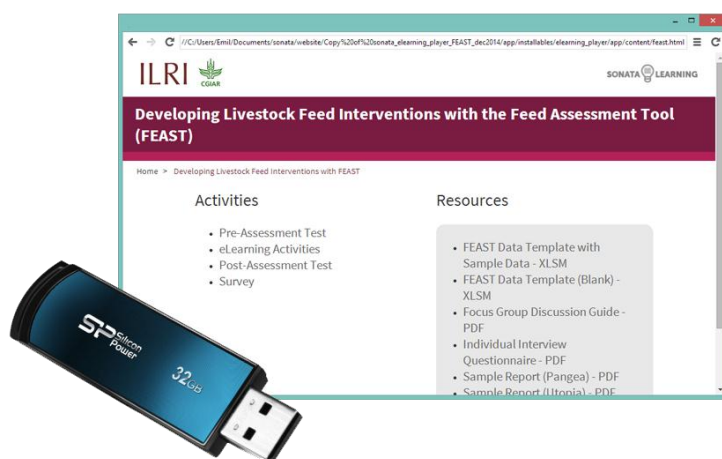
Feature	Sonata LMS	Litmos	TalentLMS	EZLMS	Totara
Hosting	Hosted	Hosted	Hosted	Hosted	ILRI responsible for hosting
Support	Email support, 48 hour response time to non-urgent emails. 24 hour response time to urgent emails - less if we can find a rep in the Eastern Hemisphere.	Email support, 24 hour response time to non-urgent emails. 8 hour response time to urgent emails.	Email support, no published response times.	Ticket system, no published response times.	User forums
Implementation Effort	Small amount of branding & configuration required (Sonata will handle)	Small amount of branding & configuration required (Sonata will handle)	Small amount of branding & configuration required (Sonata will handle)	Small amount of branding & configuration required (Sonata will handle)	Extensive configuration typically required (Sonata will only deal with adjusting basic out-of-the-box settings)
SCORM Content Support	Yes	Yes	Yes	Yes	Yes
Native Quiz Builder*	No (use iSpring QuizMaker for now)	Yes, though quiz maker is from an earlier version and looks out of place	Yes	Yes	Yes
Levels of Organization	Course, Lesson, Step	Course, Lesson, Step	Course, Step	Course, Lesson, Step	Course, Lesson, Step
Multi-Course Sequences	Yes	Yes	Yes	Yes	Yes
Branded Sub-Portals	Yes	No	Yes	No	No
Support for Classroom Blended Learning	Yes	Yes	No	Yes	Yes
Discussion Forums for Learners	Yes, and participation can be required as part of course	No	Yes	No	Yes
Offline Player Integration	Integrate with Sonata Offline eLearning Player	iPad app allows for completion of activities offline, but requires synchronization for scoring	No	No	No

Need for an offline player solution

The lack of wired broadband and 3G/4G Internet infrastructure in the countries where ILRI operates makes conventional, Internet-based methods for distributing media-rich e-Learning content infeasible. For instance, YouTube is generally recognized as the most efficient media streaming platform in the world, yet even YouTube requires a steady 300kbps connection to ensure a reliable low-quality stream. At present, the average connection in developing countries is much, much slower than that.

Sonata Learning's offline player module

ILRI's partner organizations typically operate in regions with little or no broadband Internet connectivity. When ILRI partnered with Sonata Learning to create e-Learning materials to complement its classroom instruction, we searched for an application that would allow learners in these regions to play the sort of multimedia and interactive content typically delivered on a web-based Learning Management System. In the end, we couldn't find a solution that met ILRI's requirements at an acceptable price point, so Sonata developed a custom solution.



Features and capabilities

The offline player module for the Sonata Learning Management System:

- Runs on a USB drive without the need to install any software on the learner's hard drive
- Plays any type of content in its own self-contained browser, avoiding any complications that might arise with the computer's default browser
- Saves assessment and progress data to the USB drive, then exports results to a .csv file
- Provides an administrator app to automatically install the player to multiple USB drives

Benefits of "offline" e-learning

Given how "e-Learning" has become synonymous with "online learning" in recent years, it's easy to forget that computer-based training predates the ubiquity of the Internet. Incorporating e-Learning into classroom training benefits learners and organizations by:

- Ensuring consistency of presentation
- Allowing participants to proceed or review at their own pace
- Tracking learner performance and assessment scores
- Enriching the learning experience through multimedia and interactive content

Unfortunately, as a consequence of the e-Learning community's rush to the web, millions of learners in the developing world have been left behind, unable to access quality e-Learning content for want of reliable broadband Internet access or 3G+ mobile. Meanwhile, ongoing updates to Windows and other operating systems have rendered most older delivery solutions obsolete.

Comparing Sonata LMS offline player module with other Windows e-learning players

In our search for an offline e-Learning player, we found the available solutions fell into one of the following categories:

- Older (pre-2008) open source Windows solutions, which generally had user-unfriendly interfaces, required considerable effort to load and play activities and often required the installation of multiple third-party drivers (Java Runtime, etc.)
- Newer e-Learning players that only ran on iOS or Android mobile devices and required an Internet connection to download content in the first place (these were generally intended for use during brief periods when an otherwise connected user did not have access to the Internet)
- Applications used by military organizations that needed to deliver e-Learning “in the field”

Price was also a major issue, as the more viable commercial solutions imposed a limit on the number of copies that could be distributed. Given ILRI’s desire to distribute its learning content as widely as possible (and the practical impossibility of tracking every last copy distributed), this complicated matters.

After reviewing the off-the-shelf options, we were convinced that Sonata could quickly develop a highly competitive solution for a reasonable price. Here is a feature comparison of the solutions we considered procuring versus the solution we eventually built:

	Harbinger	Birdeye	Ilias	Sonata
Used By	U.S. Army, World Bank	Italian Air Force	French Armed Forces	ILRI
Operating Systems	Windows XP or above, iOS, Android	Windows XP or above, Linux, OSX, iOS, Android	Windows XP or above, Android	Windows XP or above, Linux, OSX
Browser Dependency	Uses default browser on OS	None (does not run in Internet browser)	Firefox	None (has its own self-contained browser)
Installation	No installation required, can run on USB drive	Requires Installation	Requires Installation	No installation required, can run on USB drive
LMS Integration	Native integration with Saba LMS, can be integrated with other LMS systems for a fee	May be integrated with LMS systems for a fee	Integrates with Ilias LMS	Native integration with Sonata LMS, can be integrated with other LMS systems for a fee
Modern Interface Style	No	Yes	No	Yes
Formats Supported	Scorm 1.2, 2004	SCORM 1.2, 2004, Tin Can API	Scorm 1.2, 2004	Scorm 1.2, 2004,
Special Features				Automated installer to copy to multiple USB drives automatically via hub