Elearning tools and standards

Learning management systems

"A learning management system (or LMS) is a computer system developed for managing and delivering online courses."

The most common LMSs are Moodle (open source), Blackboard, Canvas and in Australia we have Janison, which is also quite common. There are a lot of smaller ones too, especially ones that have been custom-built for a particular industry or larger companies will often have their own custom built one too. This course is delivered using Moodle.

The LMS is typically installed on your institution's server, using technology like PHP or Java or .NET. Your IT team will usually do this. Once the LMS has been installed you'll be able to access it through your web browser. The IT team will give you a URL (web address), which you will end up referring to as your online school, gateway or portal or whatever you want to call it. Let's call it your learning portal. So, your learning portal is basically just a web site that acts as an interface between you, your students and the learning management system. Depending on what access you have been given, once you log in to the learning portal you will be able to build and deliver courses and interact with the students.

Most LMSs will allow you to customize the look of the learning portal. You will also be able to enroll students, build and test content, set up virtual classrooms, create assessments, view the gradebook and generate reports.

Content authoring tools

Authoring tools are easy-to-use software packages like [Storyline](#) (by Articulate) or [Captivate](#) (by Adobe) that create elearning multimedia content, which you can upload to your LMS or link to your LRS.

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Most elearning authoring tools create content that supports elearning content standards like SCORM.

SCORM

SCORM stands for Shareable Content Object Reference Model. This is a mouthful, which is why most people just call it SCORM and forget about what it's actually short for.

"SCORM is a standard that enables elearning content to 'talk to' different learning management systems and vice versa. "

For example, a teacher uses an authoring tool, such as Storyline, to build a multimedia learning activity. When the teacher exports the activity from Storyline, they make sure the SCORM compliance option is checked. So the exported activity (usually a ZIP file) is now considered a SCORM package. The teacher then uploads the SCORM package into their LMS and puts it into their course as an activity. When the student logs in to the course and starts the activity, the activity can 'get' data (like the student's name) and 'send' data (like a total score) to the LMS.

The whole point of this is that the same multimedia activity or SCORM package can be shared with different learning management systems. A SCORM package will therefore work the same way whether you import it into Moodle, Blackboard or Janison. Theoretically at least.

Tin Can API

"[Tin Can API](#) is an elearning standard that makes it possible to collect data about the wide range of experiences a person has (online and offline)."

Tin Can API is what the SCORM standard is evolving into.
SCORM is a standard that allows elearning content and assessments to integrate with an LMS and be shared across multiple systems. The problem with SCORM is that it only allows certain types of learning and assessment to be recorded. Typically, a SCORM-compliant course or module will have multimedia content about a subject followed by some interactive activities like drag and drop activities or quizzes. But this isn't the only way people learn. Learning happens through heaps of different online and offline activities, for example people learn through their interactions on social media, by building something in real life, by reading a book etc. In short, people learn things by experiencing the world and life in general. This is why Tin Can API is also called xAPI (because the x stands for 'experience'). It enables the things a person experiences to be counted towards their learning and assessment.
So, in summary, SCORM allows elearning multimedia content to be uploaded into an LMS, and records data about the student's interactions and results into the LMS. Tin Can API allows a lot more *types* of data to be stored.

Learning record store

"The Learning Record Store (LRS) is the central store that receives, stores and returns data about learning experiences, achievements and job performance."
You'll need an LRS in order to do anything with Tin Can. TIN CAN API works by allowing a learner to send a statement about what they have experienced. The statement is just a simple sentence in the form of a noun, verb and object (i.e I did this). This statement gets sent to a learning record store (LRS), which is just what it sounds like – an online system or repository where learning records are stored. These learning records can then be accessed by people (e.g. teachers, students) or other technical systems (like an LMS or another reporting tool).
For example, Jane is working in a real estate office and is in training to become a salesperson. She attends an open day and helps out with showing potential buyers around the property. This is documented through photos or video and then uploaded to the learning record store. When she uploads the photo a statement 'Jane demonstrated...' is sent to the LRS.

Accessibility standards

Your eLearning should be able to be understood by all of your audience. Learners may come from different cultural backgrounds, be a wide variety of ages and may have physical disabilities such as poor or no vision and hearing.
To help design online materials for all learners, there are guidelines for online content called the Web Accessibility Content Guidelines (WCAG) which can be found at http://www.w3.org/TR/WCAG20/.
The WCAG 2 at a glance document can help you get an overview of accessibility standards http://www.w3.org/WAI/WCAG20/glance/.

Blogs, wikis and eportfolios

These tools allow learners to create and contribute learning content.

Blogs

A blog is a website made up of individual entries or 'posts'. Blogs can be created by a single user or collaboratively, and typically include features such as comments and links to increase interactivity. In an educational context, learners might use a blog to reflect on their learning and share ideas with classmates. Popular blog sites include Tumblr, WordPress and Blogger.

Elearning tools and standards

Wikis

A wiki is a collaborative website that allows users add or modify content using a web browser. The best known example is [Wikipedia](). In elearning, smaller scale wikis are used for learners to create content collaboratively. For example, learners might be assigned terms to define to create a collaborative course glossary.

Eportfolios

An eportfolio is an online portfolio in which learners collate multimedia evidence of their learning. An eportfolio might contribute to assessment, or be used as part of a learner's resume to demonstrate skills. [Mahara]() is one popular open source educational eportfolio tool.

Webinars and virtual classrooms

These tools provide opportunities for real time interaction between students and teachers.

Webinar

Short for Web-based seminar, a webinar is a presentation, lecture, workshop or seminar that is transmitted over the Web using video conferencing software. A key feature of a Webinar is its interactive elements: the ability to give, receive and discuss information in real-time.

Virtual classroom

A Virtual Classroom is an online classroom where students interact, access presentations and resources and work in groups.
Examples of webinar and virtual classroom software include [Adobe Connect]() and [Blackboard Collaborate]().

MOOCs

A MOOC, or Massive Open Online Course, is a course offered online and free of charge. Anyone, anywhere in the world, can enroll. A huge range of courses are available through providers such as [Coursera]() and [EdX]. Certificates are available for many courses, providing learners with recognition for the skills they master.
Watch the ['What is a MOOC']() (YouTube 4:26 mins) to find out more.