Market Guide for Higher Education Learning Management Systems

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Initiatives: Education Technology Optimization and Modernization

The higher education learning management system market has been consolidated on a small number of vendors, but there are signs of a different potential future. CIOs can use this Market Guide to modernize and optimize learning environments and guide institutions to the best options for their needs.

Overview

Key Findings

- The slowdown in the number of institutions seeking to replace their learning management system (LMS), or looking at the market to evaluate their solution, has continued into 2020. This is, in part, a consequence of the fact that many institutions have replaced their systems in the past four years. The pressure of dealing with COVID-19 related challenges has also meant that many institutions have delayed looking to the market.

- Prices for LMSs continue to be low, although there are signs of greater variability in pricing and growing evidence of more upselling on the part of vendors. This may include charging extra for components, such as development and test servers and additional storage, which may have been included as part of the base price in earlier contracts.

- Analytics and data continue to be a focus of a number of the major vendors and some clear distinctions are emerging between the approaches taken. It remains unclear, however, how much these features will drive adoption of one platform over another.

- There is growing interest in use of productivity suites from vendors such as Microsoft and Google as replacement LMSs. This has been additionally spurred on by the development and release of new instruction-related features by some of these vendors.

Recommendations

Higher education CIOs seeking to modernize and optimize their learning environments should:

- Utilize your LMS as the center of your institutional learning ecosystem, extending its functionality by means of linking to a growing array of other tools via Learning Tools Interoperability (LTI) and APIs.
Watch the evolving LMS market and explore new solutions by doing focused and contained pilots where at all possible. Keep a keen eye on the functionality gaps of some of these emerging solutions, especially in areas such as learning analytics, assessment (quizzing) and integration capabilities.

Ensure that your LMS and your institutional analytics solutions are aligned. Complete a side-by-side evaluation of your current LMS roadmap and your analytics and data strategies. Assess what the implications of that roadmap will be for your ability to access and use the LMS and LMS-related data. Will you have access to the data you need and will it tie you into the use of any particular technologies or data formats?

Market Definition
Higher education LMSs are the core of the teaching and learning technology ecosystem, usually providing access to a range of tools and services located within, and outside of, the LMS. In higher education, the LMS also provides access to learning resources and other content, tools to develop and track assignments and assessments, and some reporting and analytics capabilities. The LMS may also be used to manage online interactions and collaboration. It is typically organized around the various roles involved in teaching and learning, and is usually integrated with a student information system.

Market Description
The higher education LMS market is a global market. There is some geographic variation in terms of which vendors dominate, and in the degree to which the market is saturated (where every institution has at least one LMS). In higher education in general, and in North America in particular, there is considerable saturation, with every institution having at least one primary LMS, as well as probably one or two that the CIO does not know about. In other markets, there is considerably less saturation, with some institutions only now moving to establish an LMS. There are also some niche vendors serving specialized functions, such as competency-based learning or LMSs that support coding.

Increasingly, the LMS is the base of a broader ecosystem of tools that have specialized functions, such as more fully featured discussion boards and collaboration tools. These tie into the LMS via LTI integrations or via an API. These extend the functionality of the LMS and provide many tools to suit individual instructor preferences.

Market Direction
The LMS has proved to be the backbone of many initial institutional responses to COVID-19. The need to rapidly provide continuity of instruction has led higher education toward learning environments that blend content distribution with live collaborative sessions.
Despite this interest in the LMS, the market slowdown identified in a number of different venues over the past few years has continued.¹ This slowdown in new adoptions stems, in part, from the fact that prior to the slowdown, many institutions in multiple geographies reviewed and replaced their LMSs. The slowdown is exacerbated by the fact that COVID-19 caused many institutions to ramp up online learning. In such an environment, most institutions naturally did not want to spend the time on a review or further burden students, faculty and staff with a move to a new system. Instead, there has been an initial focus on optimizing or extending existing systems.

Data and analytics continue to be a focus among higher education LMS vendors. Gartner sees LMS vendors approaching analytics in distinct ways: as part of the normal flow and function of the LMS, exporting data, and providing standard reports and self-service options, seeking analytics capabilities via acquisition and relying on third-party vendors. There is currently a lot of change in how individual LMS vendors are approaching analytics within their platforms, but we expect them to settle on one of the approaches described above. It is unclear how big of a selling point analytics will be for institutions, but we anticipate they will become more of a differentiator over time.

### Market Analysis

The major distinction in the market is between proprietary, general-purpose, and open-source and community source general-purpose LMSs. Many of both the proprietary and open-source vendors also offer massive open online course (MOOC) platforms, either as an additional offering or as a core part of their systems. We have included some systems that do not refer to themselves as learning management systems, but which nevertheless function and are used in that fashion by higher education institutions.

Not included in our analysis are classroom versions of major productivity suites. There is growing interest in the use of these from vendors such as Google and Microsoft as replacement LMSs.² This has been additionally spurred on by the development and release of new instruction-related features by some of these vendors, such as assignments and (very lightweight) assessment capabilities. This is in addition to the deeper integration of tools, such as integrating Microsoft Teams into the LMS to support meetings and group assignments.³ Despite growing interest on the part of higher education institutions, most of these classroom applications of the productivity suites do not currently have the full capability of enterprise LMSs and are therefore not categorized as LMS’s for the purpose of this Market Guide. They also lack the full spectrum of integration capabilities with other products, which are currently so important in making the LMS usable and powerful.

### Proprietary Higher Education LMSs

This sector of the market is, by far, the largest and has been the most dynamic over the past five years. Vendors in this space typically offer a learning system with some additional add-on components (such as additional storage, test and development servers, and support services, including Tier 1 help desks). Some vendors offer further tools and services (such as ticketing
systems, data integration capabilities and other functional tools, such as video, adaptive learning or analytics). Increasingly, these solutions are moving to the cloud, and this tendency will continue at an increasing pace. Cloud services are often offered at various tiers with more resources (such as storage) or support offered at higher-priced tiers.

Part of what has driven the dynamism of this particular market segment is the improved user and mobile experience that vendors in this space have been able to bring to their products. These vendors have also tended to be either cloud native or aggressively pursuing a cloud strategy. This has proved to be a strongly desirable feature for higher education users.

Sample vendors in the segment include Aula, Blackboard, D2L, Instructure, itslearning and Teamie.

**Open-Source or Community Source LMSs**

This sector of the market is composed of two variants on the open-source approach:

- A pure open-source approach (represented, for example, by Moodle), where anyone can potentially contribute code
- A community source, where a community of partners develops code

This sector of the market saw considerable growth from 1995 through 2012, as many universities and colleges sought to move away from commercial offerings for philosophical or budgetary reasons. This market sector is a complex one, and besides the version of each product that is available to be run on-premises, many of the products are also available for licensing from third parties. These companies host or provide access to cloud versions of open source LMSs, often with additional functionality, services or integrations. These additions can span the range from providing user interfaces or “skins” for the LMS to bundling access to other services such as remote proctoring.

At least in some global regions (such as North America and Northern Europe), the open-source sector of the market has been shrinking in higher education. This trend has continued over the past year, with a slow, but steady, movement of institutions away from open-source solutions as their primary LMS. Open-source solutions remain strong in other global regions, such as parts of Europe, Latin America, Africa and parts of Asia.

The growth of open source in North America from 2007 through 2012 occurred partly out of a philosophical commitment to open source on the part of higher education institutions. It was often also a response to high prices, especially for smaller institutions. At the time, many contracts were structured so that they paid considerably more per student than larger institutions. At very high price points per student, it made more sense to move to an open-source alternative. But two factors have been causing institutions to move away from open source in the more mature markets. First, many open-source LMSs did not keep pace with more proprietary systems, especially with regard to usability and mobile capabilities. Second, most open-source solutions do not have a cloud
offering, and this has proved to be a significant disadvantage, given the popularity of SaaS for higher education institutions.

Gartner predicts that interest in open-source solutions will increase if one or more of three things happens:

- If proprietary LMS licensing costs go up
- If open-source providers were to make significant improvement in usability and mobile capabilities (two areas where they have traditionally lagged)
- As more cloud capabilities become available, which have proved to be popular in this space, offering generally greater reliability and ability to scale, among other benefits

Sample vendors in the open-source and community source sector are Apereo, Claroline, Moodle, OpenOLAT and Open edX.

**Representative Vendors**

**Market Introduction**

The higher education LMS market remains somewhat confined, with relatively few vendors serving a majority of users. Tables 1 and 2 list representative vendors to give a mix of different approaches and products from a few different geographical regions. However, reflective of the market, North American-based products or vendors still tend to predominate.

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<thead>
<tr>
<th>Vendor</th>
<th>Product or Service</th>
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<td>Aula</td>
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Table 1: Representative Vendors in Proprietary Learning Management Systems
The vendors listed in this Market Guide do not imply an exhaustive list. This section is intended to provide more understanding of the market and its offerings.

Market Recommendations

- Continue to think of your LMS as the center of your institutional learning ecosystem, extending its functionality by means of linking to a growing array of other tools via LTI and APIs.
- Watch the evolving LMS market and explore new solutions by completing focused and contained pilots where at all possible. Keep a keen eye on the functionality gaps of some of these emerging solutions, especially in areas such as assessment (quizzing) and integration capabilities.
- Ensure that going forward, your LMS is compatible with your institutional analytics and student success strategies by evaluating your current LMSs analytics and data strategy and roadmap. Assess what the implications of that roadmap will be for your ability to access and use LMS and LMS-related data. Will you have access to the data you need and will it tie you into the use of any particular technologies or data formats?

Acronym Key and Glossary Terms

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<th>Acronym</th>
<th>Definition</th>
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<td>LTI</td>
<td>Learning Tools Interoperability (LTI) is an educational technology specification</td>
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developed by the IMS Global Learning Consortium. The specification allows and specifies a method for the exchange of data between the LMS and external tools (see Learning Tools Interoperability — IMS LTI 1.3 and LTI Advantage). There is a wide variety of these external tools and, in fact, they span every possible variety of educational technology application and quite a few general purpose applications. They include everything from content produced by publishers to free-standing quiz tools, proctoring services, e-portfolios, polling and clicker apps, digital whiteboards and collaboration tools to name but a few. See Brightspace App Finder and EduAppCenter for listings of LTI-enabled applications from two major LMS vendors.

Evidence


2 Demo: Teams in the Classroom at Microsoft Inspire 2019, YouTube.

3 Brightspace Now Integrates With Microsoft Teams, D2L.

4 Partners, Moodle and Hosting, Open edX. Though most open source systems can be hosted with a variety of both official and unofficial partners.

5 Virtual Testing Is Driving a Fast and Furious Need for Academic Integrity, Cision PRWeb.

Note 1: Representative Vendor Selection

The vendors named in this Market Guide were selected to represent both types of solutions as discussed in the Market Analysis section — proprietary and open-source solutions. They also reflect market share among enterprise-level clients across multiple geographic areas and types of institutions.

Note 2: Gartner’s Initial Market Coverage

This Market Guide provides Gartner’s initial coverage of the market and focuses on the market definition, rationale for the market and market dynamics.

Recommended by the Authors

3 Priorities to Ensure Your Higher Education LMS Supports Digital Transformation

Market Guide for Corporate Learning

Recommended For You

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Education Technology Optimization and Modernization

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