ASSOCIATION LEARNING MANAGEMENT SYSTEMS

The Report

prepared by Jeff Cobb and Celisa Steele

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Association Learning Management Systems 2013

Please note: This document contains only the first 23 pages and the final page of the full report

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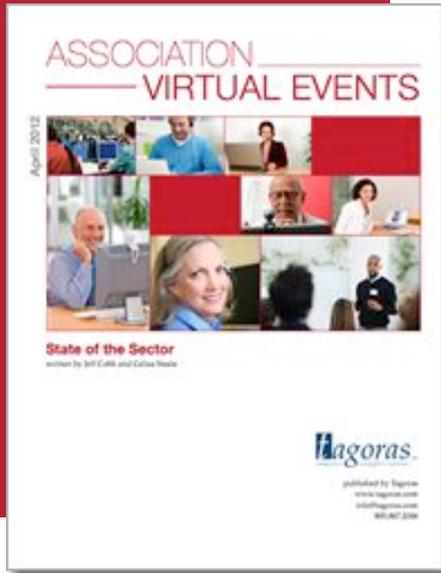
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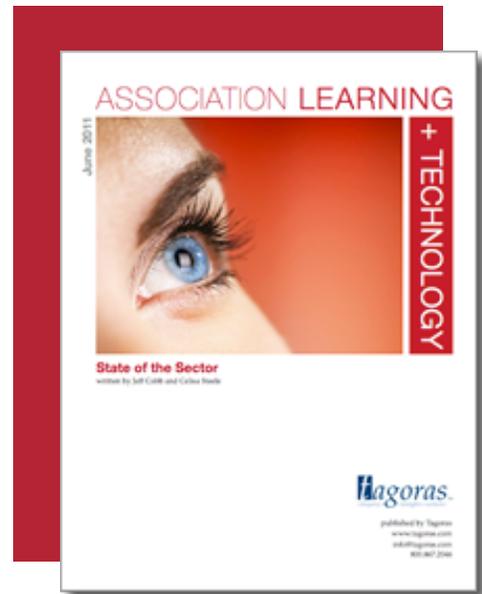
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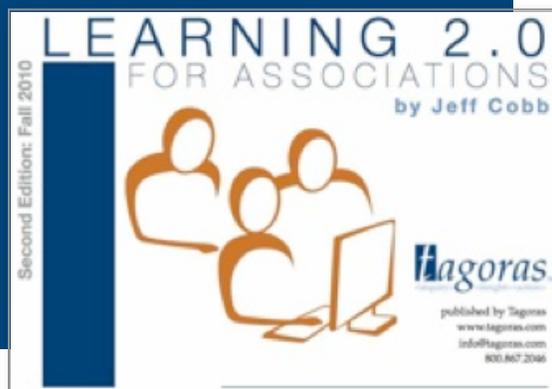
Introduction
The Impetus and the Updates

For more than a decade we have helped trade and professional associations use technology to enhance and grow their education programs. During much of this time we built and sold learning management system software and, as a result, experienced first hand the ways in which organizations go about selecting learning technologies. In our opinion, it was usually not an ideal process.

For starters, there never seemed to be a good information source to which organizations could turn for basic knowledge about the systems that were a good fit for member-focused education. Yes, there were—and still are—excellent reports available about corporate and academic learning management systems, but these reports do not address many issues that are important in association education programs. Nor do they attempt to identify the companies that are really focused on serving nonprofit membership organizations.

As a result, organizations typically spent far too much of their limited resources on figuring out the right questions to ask, finding the right vendors, and gathering information. In the meantime, they often skimped on or simply did not get around to the deeper, more meaningful conversations that would help them find a provider that was truly a great fit for their specific needs. There had to be a better approach.

We're are no longer in the software business, but we still focus on helping associations launch and grow successful e-learning initiatives. As part of our work, we've seen signs that demand for

learning management systems in the association sector is on the rise, and that evidence prompted us to release the first version of this report in October of 2009 as a practical research report on systems that are a good fit for associations. A second version came out in 2011, and this is the third version provides updated and new information. The initial report included 11 providers, the second featured 15, and this one covers 20. The continues to be the only publication we know of that offers detailed profiles of key learning management system providers to membership organizations.

For additional resources related to learning technologies and the business of continuing education, visit our free resource center at www.tagoras.com/resources.

We are truly grateful to the providers participating in this version of the report:

- Avilar
- Blackboard
- BlueVolt
- CommPartners
- Digital Ignite
- Digitec Interactive
- DLC Solutions
- Educadium
- iCohere
- InReach
- Interactyx
- Latitude Learning
- LearnSomething
- Meridian Knowledge Solutions
- Neovation
- Peach New Media
- Starfield Talent Management Solutions
- Thinking Cap
- WBT Systems
- Web Courseworks

The questionnaire we asked representatives from these companies to complete was extensive and required a considerable time commitment. We regard their willingness to provide such detailed information to be a strong sign of their commitment to working with membership organizations.

We hope you find the report useful, but we also welcome your feedback on how we might improve it. Feel free to contact either of us with any suggestions or questions you have.

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What This Report Includes
The Four Primary Sections

> **This report represents a major effort to provide associations with targeted information about learning management systems to power their learning initiatives.**

This report contains four primary sections.

Sector Overview

In Sector Overview we provide a general perspective on LMS usage in the association sector. This section features selected aggregate data compiled from the vendor questionnaire responses as well as key data points from our 2011 *Learning + Technology: State of the Sector* report.

LMS Selection Guidelines

In LMS Selection Guidelines we offer a high-level set of guidelines to help you through the LMS selection process.

Vendor Comparison Tables

In Vendor Comparison Tables we provide a range of tables to help you compare key features, functionalities, and pricing across vendors. This can be a great starting point for homing in on systems that fit your most essential requirements.

Vendor Profiles

This section is where we provide very detailed information on each participating vendor, including the company's response to the survey questions.

The survey was divided into 28 sections and consisted of almost 250 questions. Each section of the survey ended with a free-text response field, intended as a catchall for qualifications of the company's answers to any questions in the preceding section, caveats, suggestions for improving the survey questions, or general comments.

Please note that company responses are presented as submitted to us, without substantive alteration —we limited our editorial pen to the correction of obvious typographical errors, spacing issues, and the like.

We also try to make your life a bit easier by providing our take on each system. These brief write-ups should help you begin to get a feel for each system, its strengths, and notable gaps.

HOW VENDORS WERE SELECTED

A variety of factors, some admittedly subjective, were used to determine which vendors would be included in this version of *Association Learning Management Systems*.

- Had we ever encountered the system in the association marketplace? Having worked on association e-learning initiatives for years, we were already aware of a number of systems that associations tend to use.
- Did associations that participated in *Association Learning + Technology: State of the Sector* mention the system? In our survey for this other report, we asked respondents about a number of systems, and a number of respondents also wrote in the name of systems we did not list as a survey choice. All of these were considered for inclusion in the report.
- Did the company respond when contacted and agree to complete the survey? We had good contact information (i.e., not just an "info@" address) for the companies we felt might be good candidates for the survey. Some companies did not respond to our inquiries; others responded but then did not complete the questionnaire.
- Finally, the company's product had to meet our criteria for being considered a learning management system. More on this below.

DEFINING LMS

To be considered for the report, a company had to meet the following criteria:

- Offer its own product or add significant technical value to a third-party or open-source product. In other words, the company could not simply be a reseller or hosting provider for a platform.
- Offer its platform for use independent of engaging the company's services. This excludes, for example, conference content capture companies that provide a platform only as an extension of their capture services.
- Be designed clearly for delivering online learning content—as opposed, for example, to general Web site content—and provide a reasonable level of tracking of and reporting on learner use of this content.

We did not, for purposes of this report, make a hard distinction between learning management systems (LMSes), systems intended primarily to deliver and track online learning experiences, and learning content management systems (LCMSes) systems that typically provide for more sophisticated management of learning content objects and typically also include an authoring capability.

We know some readers will object to the blurring of lines between these categories of systems, but we feel the distinction is of limited value, particularly in this market. While some corporate providers still hold firmly to the idea of LMSes and LCMSes as separate pieces of software, academic systems and most of the systems in the association market tend to offer a blend of LMS and LCMS capabilities.

We also did not include pure open-source solutions like Moodle and Sakai in this report. While these may be a viable option for many associations, they are not, in our opinion, well-suited "out of the box" for many core association needs. Three companies in the report have a Moodle base, however, and one offers an open-source version of its proprietary platform.

Whatever your perspective on the definitions, we tried to be clear about whether each system in the report includes content authoring capabilities and whether it can deliver and track standards-based content—the two capabilities that we feel are most fundamental in the LCMS/LMS distinction.

We also included some systems that started as Webinar platforms or focus on that type of learning product. Regardless of origin or focus, if the systems fit the criteria we identified and support other non-Webinar types of learning activities, we included them.

Finally, if you represent a company that you feel should be included in this report, we would be more than happy to learn more about your system and potentially include you in the next edition. Please understand, however, that companies that participate must be prepared to provide the same type of information that companies in this report have provided.

How to Use This Report
Some Notes and Suggestions

We view this report as only one part of a complete, thorough process for selecting an appropriate learning management system.

For many organizations, it will serve as a starting point. By reviewing the report, stakeholders who do not have a good idea of the types of value an LMS can deliver may get a better idea of the requirements most relevant to their organization.

In other cases, an organization may already have a good idea of its requirements, and this document can help in identifying the systems that best align with those requirements.

In either case, though, clearly identifying the business problems you are trying to solve and establishing and agreeing to the most important requirements for your organization are fundamental. This document can help with that process, but is not in any way a substitute for it.

Additionally, this document does not necessarily eliminate the need for a request for proposals, and it certainly does not eliminate the need for adequate due diligence. Our hope is that, by providing a great deal of detailed data up front on features and functionalities, the report will enable organizations to focus less on gathering feature data and filtering out vendors during an RFP process and more on substantive conversations with vendors that seem like an appropriate fit.

We caution you not to take all the answers you find in this report at face value. No matter how carefully we try to ask the questions, there is always room for interpretation. If a particular feature, functionality, or service is of great importance to your organization, be sure ask for a detailed demonstration, check references, and do whatever else may be necessary to confirm that you and the vendor actually understand each other.

This report presents a snapshot of 20 systems at a particular point in time. Most companies continually release enhancements and updates. If a platform looks like a good fit overall but lacks certain features per the report, contact the company

directly to learn if newer versions of the platform provide the functionality.

Finally, as is already implied in the preceding comments, do not expect this report to identify the perfect system. There is no perfect system. Any of the systems in this report may be a great fit for your organization, depending on your specific needs, but there are always going to be gaps. The key is to make sure the gaps are ones that do not interfere with your most fundamental objectives. Our hope is that this report will help make the tradeoffs clearer and, in the end, leave you feeling that you have made the most informed choice possible.
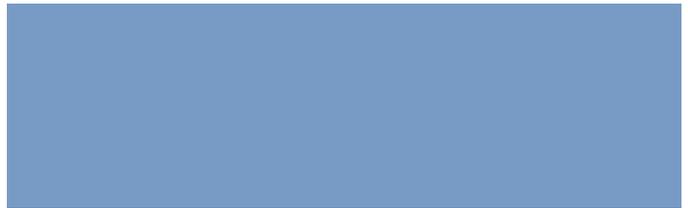
A NOTE ON ANNOTATION AND TERMINOLOGY

As you review the data in the vendor comparison tables and the individual vendor profiles, you'll notice em dashes (—) at times. An em dash is used to indicate the LMS company did not provide a response where one was expected (requested).

You'll also see "NA" and "Not applicable" used. These are used to indicate the LMS company did not provide a response, but no response was expected because the question does not apply (e.g., the question asks about pricing for client-hosted implementations, but the company does not offer client-hosted options).

We encourage you to review the glossary and keep in mind how we defined key terms used in the survey. These definitions were provided to the vendors as well, and they were requested to keep them in mind as they completed the questions.

Glossary
Definitions of Key Terms

Below are definitions of how key terms are used in the survey. Please keep these definitions in mind as you review the vendor responses to the questions.

A

administrator: individual with permission to manage some aspects of the LMS; may be a teacher, facilitator, content developer, or technical manager; compare to *end user*

assessment: one or more questions used to gauge end users' comprehension of topics and content; a test or quiz

association: nonprofit organization that serves its individual or organizational members

C

company: organization offering the LMS

completely custom: used to describe features or functionalities that could be added to the LMS for a particular client via custom programming; compare with *standard*, *semi-standard*, *third-party*, and *unavailable*

client: organization using the LMS

CMS: software used to manage the collaborative creation, editing, review, indexing, searching, publishing, and archiving of digital media and electronic text; acronym for *content management system*

customer: individual employed or served by the organization using the product (could be staff, contractor, end user, etc.)

E

e.g.: for example; abbreviation of the Latin *exempli gratia*

end user: individual accessing and using the product; learner; compare to *administrator*

evaluation: one or more questions used to gauge end users' opinion of topics or content; a survey

I

i.e.: that is, or in other words; abbreviation of the Latin *id est*

implementation: installed instance of the product, usually set up for a client

L

LCMS: software used to provide developers, authors, instructional designers, and subject matter experts the means to create and reuse e-learning content; acronym for *learning content management system*

learning content: what end users access in the LMS for training and education purposes; includes online courses, assessments, PDF-based study guides, etc.

LMS: software for delivering, tracking and managing training and education; acronym for *learning management system*

P

product: unless otherwise defined, the LMS offered by company to clients

S

standard: used to describe features and functionalities that are part of the LMS, even though they may require setup or configuration by the client; compare with *semi-standard*, *completely custom*, *third-party*, and *unavailable*

semi-standard: used to describe features and functionalities that are not automatically part of the LMS and require work by the company but that have been implemented for other clients; compare with *standard*, *completely custom*, *third-party*, and *unavailable*

T

third-party: used to describe features and functionalities of the LMS that are available via products or tools offered by other companies in partnership with the LMS company; compare with *standard*, *semi-standard*, *completely custom*, and *unavailable*

U

unavailable: used to describe features and functionalities not available in the LMS; compare with *standard*, *semi-standard*, *completely custom*, and *third-party*

Sector Overview
E-learning and Associations

Our 2011 *Association Learning + Technology: State of the Sector* report updates our March 2009 publication *Association E-learning: State of the Sector*. The report paints a general picture of technology-enabled learning activity in the association sector and, along with earlier research efforts in which we have been involved, suggests that most associations are making use of some form of e-learning or intend to make use of e-learning in the relatively near future.

6.6%
8.0%
8.0%
77.4%

Does your organization currently using e-learning to deliver education?
Nearly 78 percent of 349 associations responding to a 2010 survey reported currently using e-learning.
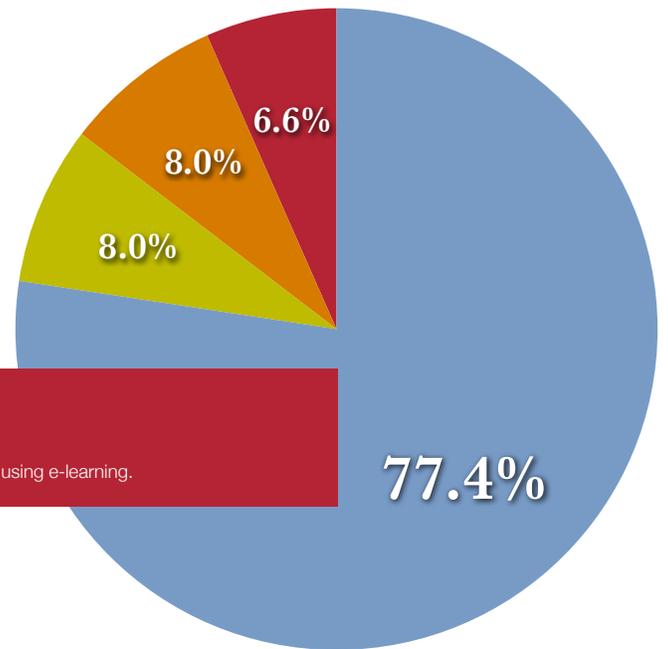
Knowing Webinars are a common format for delivering education, we weren't surprised to find that they are, in fact, the most common form of online education delivery in the association sector: 82.9 percent of organizations already using e-learning reported real-time Webinars as a form of delivery. Interviews with a range of associations support our view that Webinars are often seen as a relatively easy, low-risk way to enter the e-learning market.

At the same time, the data for the *Association Learning + Technology* report indicates that on-demand, self-paced forms of learning have a significant foothold in the market. Archived recordings of Webinars and Webcasts are one example of this type of content. Not surprisingly, 70.9 percent of associations already using e-learning indicate they offer recorded Webinars or Webcasts. But just under half (48.8 percent) also report offering self-paced, on-demand courses that are not recorded Webcasts or Webinars. Another 36.0 percent indicate they offer audio or video podcasts —a bit higher than those that offer CD-ROMS or DVDs (30.2 percent).

The popularity of on-demand content, in our opinion, is one of the major factors that will drive learning management system (LMS) adoption in the association sector. Additionally, we are encountering more organizations that see value in

- Currently deliver e-learning
- Planning to deliver e-learning in next 6 months
- Planning to deliver e-learning in next 12 months
- No plans for e-learning for at least next 12 months

using an LMS to manage all their learning formats —from place-based seminars to live Webinars to self-paced e-learning courses. An LMS can provide learners with a single gateway for activities like accessing course materials, launching a live Webinar, filling out an evaluation, and viewing a transcript. Organizations benefit from being able to manage registrations, track learner activity, and run reports within a single system.

Exactly how widespread and sophisticated association implementation of learning management technologies will be remains to be seen. Currently, only 32.6 percent of the organizations that offer e-learning make use of a learning management system. An additional 13.3 percent indicate that they plan to implement an LMS within 12 months. Our research indicates that organizations that offer self-paced, on-demand online courses are much more likely to implement an LMS. Among these organizations, 67.5 percent report either already using an LMS or planning to within the next 12 months.

The benefits these organizations tend to realize from implementing an LMS are the same benefits that will accelerate growth as more organizations become aware of them. Namely, a learning management system can:

- Facilitate the sale of learning products to members and customers
- Provide sophisticated tracking of product usage by learners
- Ease the administrative burden of dealing with continuing education credit
- Provide self-service access to certificates, transcripts, and other resources for learners
- In many instances, be used for managing both online and classroom-based training

We are also finding that an increasing number of LMSes enable organizations to provide chapters, corporate members, and other organizational users with their own branded or co-branded instances of the LMS. In addition to any fees the association may charge organizations or groups for using the LMS in this way, this scenario can create new distribution channels for the association's educational content.

Considering that well under half of current e-learning programs have implemented an LMS in a market that continues to grow and mature, it seems a reasonable bet we will see the number of LMS implementations rise significantly in the coming years.

Barriers to Growth

In spite of what seem bullish conditions for growth of the association LMS market, the majority (63.5 percent) of organizations planning an e-learning initiative are unsure about whether they will use an LMS. There are, in our opinion, a number of factors that contribute to this situation:

- The current state of the economy
- A general lack of knowledge about what a learning management system is and how it can help support the business objectives of the organization
- A perception that LMSes are expensive and that implementations are typically complex and time-consuming

Interest in e-learning is strong as a result of travel budget cutbacks and increased concern about time out of office, but an LMS purchase, even if desired, is still perceived as out of reach by many organizations. We have to believe economic conditions will improve over time. Additionally, organizations will become more informed about the potential operational and revenue-generating advantages that implementation of an LMS can offer. Customer education along these lines, in particular, is an area where LMS providers would be well-advised to refine their efforts.

Better information about the cost and time required to implement an LMS is one of the major benefits we hope this report will provide to organizations.

Implementation Costs and Timelines

Implementation of a learning management system (LMS) or learning content management system (LCMS) is usually a sign that an organization has made the decision to invest significantly in an e-learning strategy—presumably because it sees the potential for a positive return on that investment. Like other complex software, these systems often come with significant licensing fees, and the time and cost for implementation can be substantial, particularly if integration with other systems is involved.

In the survey completed by vendors featured in this report, we asked about both pricing and implementation timelines.

PRICING

To gauge the general level of pricing for LMS implementation in the sector, we asked each company to respond to the following:

- For a *company-hosted* implementation, provide a total pricing estimate in U.S. dollars (USD) for the following number of registered end users *for the first year*. Include all costs paid to company for typical implementations of these sizes (i.e., licensing, customization, integration, training, hosting, and any other areas of work).

Some companies did not provide specific pricing figures, but among those that did, the average year-one cost ranges from a little over $22,000 to almost $102,000.

We also asked companies to provide a cumulative figure over three years, to help gauge the potential longer-term costs of an LMS implementation. The average three-year cost ranges from around $44,000 to $236,000.

All the companies participating in this report indicated a preference for hosting the learning management system and providing it to the client either through a dedicated server set-up or on a software-as-a-service (SaaS) basis. This approach is generally advantageous to the LMS company because it helps limit the resources and time needed for support, maintenance, and ongoing development of the application. We feel it is also advantageous for the vast majority of clients for

these very same reasons. The hosted approach also generally translates into lower overall costs to the client, based on the data we collected from the LMS vendors. Eight of the twenty companies participating in the survey—Avilar, Blackboard, DLC Solutions, iCohere, Latitude Learning, Meridian Knowledge Solutions, Thinking Cap, and WBT Systems—support client-hosted implementations of their LMSes. For those of the eight companies that provided detailed pricing information, the average year-one cost ranges from approximately $43,000 to $155,000, and the average three-year cost ranges from around $66,000 to almost $244,000.

First-year and Three-year Average Costs for an LMS by Number of Registered Users: Hosted by Client

Number of registered users	500	2,500	5,000	10,000	25,000	Unlimited
First-year average cost (USD)	$43,063	$65,313	$89,938	$119,063	$154,813	$113,125
Three-year average cost (USD)	$65,756	$110,406	$145,738	$196,225	$243,763	$176,375

First-year and Three-year Average Costs for an LMS by Number of Registered Users: Hosted by LMS Company

Number of registered users	500	2,500	5,000	10,000	25,000	Unlimited
First-year average cost (USD)	$22,376	$38,817	$54,060	$71,943	$101,760	$70,857
Three-year average cost (USD)	$43,889	$83,863	$121,047	$171,763	$235,547	$165,286

Average LMS Implementation Times in Calendar Days by Complexity

Simple	Typical	Complex
19.2	48.4	102.8

IMPLEMENTATION

With many organizations seeking to respond to the economic downturn by increasing their online education options, the time it takes to implement an LMS is more important than ever before.

We asked participating companies to respond to the following question regarding implementation:

- In calendar days, how long do complex, typical, and simple client implementations of the LMS usually take? (Assume a simple implementation means the clients uses the LMS as-is with no integration and no custom programming and a complex implementation involves integration and custom programming. Typical implementations should be based on the company's usual experience with the majority of its clients. Assume the implementation clock starts when the contract is signed and stops when end users begin accessing the LMS.)

Based on these criteria, averages across the participating companies were 19.2 calendar days for simple LMS implementations, 48.4 for typical implementations, and 102.8 for complex ones.

We did not ask companies to distinguish between timelines for company-hosted versus a client-hosted implementation. In our experience, however, implementations for company-hosted solutions require significantly less time than those for client-hosted solutions.

Learning Management and Member Management

At the heart of nearly every association is a membership database of some sort. In smaller organizations, this may take the form of a simple Excel sheet or a Microsoft Access database. As organizations grow, they often adopt one of the more sophisticated association management systems (AMSes). Data related to educational programs and certification very often finds a home in these systems, thus creating a need for all or parts of data generated in other systems to eventually make its way back to the AMS.

The integration of more sophisticated learning management technologies with existing association management systems is, in our opinion, one of the major opportunities available to associations for collecting and mining data that will help them better target their offerings to members.

INTEGRATION

In the survey for our *Association Learning + Technology* report, we asked respondents who indicated their organization used or planned to use both an LMS and an AMS system whether the two systems were integrated. Most either had already integrated or planned to integrate the two systems.

As a general rule, integration between a learning management system and an association management system happens at three levels:

1. Single sign-on
   A user who logs into the association's AMS (usually perceived by the end user logging into the organization's Web site) can navigate to the learning management system and access her courses or other content without having to log in again. This is the most fundamental level and is generally a prerequisite for other types of integration to occur.

2. E-commerce
A user purchases a course using an e-commerce system that is provided as part of the AMS, or is already integrated with the AMS, and details of the purchase are automatically passed to the LMS. When the user next accesses the LMS, the system knows to present the newly purchased content to the user.

3. Learner activity data
As a learner accesses courses and other materials in the LMS, the system accumulates a variety of data about the learner's activities —for example, how much time she spends in a course, what her scores are on assessments, and whether she has completed a course. It is often useful for the AMS to know about some or all of this data—particularly data related to course completion and issuance of continuing education credit or certificates.

We asked vendors to indicate with which AMSes, out of a list of popular systems, their LMS has been integrated for client implementation. Of the 20 LMSes covered in this report, all but BlueVolt indicated having been integrated with some AMS (completely custom (non-commercial) AMSes, iMIS, netFORUM, and Personify topping the list), and BlueVolt says it can provide single-sign on integration with customer portals via XML over HTTPS.

E-learning Guidelines and Standards

The various standards and guidelines that exist for e-learning assume their greatest importance in the context of a learning management or learning content management system implementation. The standards—the major ones of which are summarized in "Key E-learning Standards in Brief," which follows—help ensure the portability of content from one system to another and also clarify the parameters for tracking data in a compliant LMS system.

LMS and AMS integration
Of the 20 LMSes covered in this report, all but BlueVolt indicate having been integrated with an AMS.

LMS (AMS)	Count
Aptify (Aptify)	7
Association Anywhere (ACGI)	6
ClearVantage (Euclid)	5
CRM for Members (ProTech)	4
iMIS (Advanced Systems International)	11
IRMembership (IRM Systems)	0
Members360 (Affiniscape)	2
netFORUM (Avectra)	10
Office Manager (internet4associations)	0
Personify (TMA Resources)	9
TIMSS (TMA Resources)	5
Wild Apricot	0
Non-commercial AMS	13

Data collected for the *Association Learning + Technology* report suggests that standards are not an especially important factor in current association e-learning initiatives. Only 22.1 percent of organizations currently delivering e-learning identified adherence to the Shareable Content Object Reference Model (SCORM) as "highly important" or "absolutely necessary." Among organizations that use an LMS, however, 43.8 percent rated adherence to SCORM as either "highly important" or "absolutely necessary." Organizations offering self-paced online courses—a group much more likely to have a LMS—were also more likely to indicate that SCORM was very important or absolutely necessary (32.5 percent).

We asked LMS vendors to indicate whether their systems launch and track content that conforms to the major standards. The results suggest SCORM and AICC are well supported.

We didn't ask about explicitly about Tin Can (http://tincanapi.com), but one vendor (Meridian Knowledge Solutions) indicated it has already implemented that newest of standards, and we expect to see conformance to that stand grow in the coming years as the Tin Can Project progresses beyond the initial API.
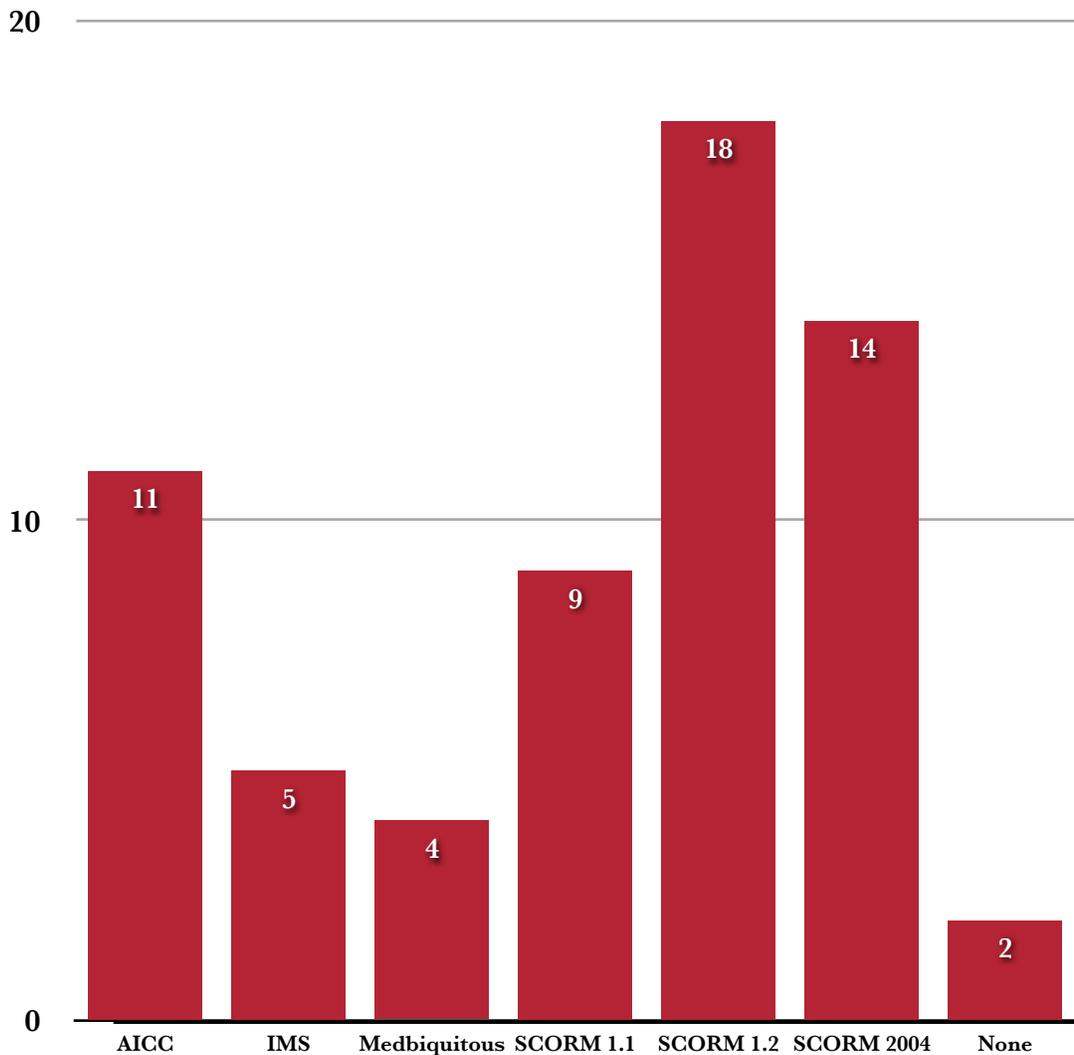
LMS support for standards and guidelines
Two of the LMS companies (iCohere and InReach) support none of the standards or guidelines.

Standard	Count
AICC	11
IMS	5
Medbiquitous	4
SCORM 1.1	9
SCORM 1.2	18
SCORM 2004	14
None	2

Key E-learning Standards In Brief

The **Airline Industry CBT Committee, more commonly known as AICC**, was one of the first groups to establish standards for how computer-based training (CBT) should communicate with computer-managed instructions systems (CMI) designed to track training activities. First established in 1993, the AICC CMI Guidelines for Interoperability (http://www.aicc.org/joomla/dev/index.php?option=com_content&view=article&id=64&Itemid=28) form the basis for much of the subsequent work that has been done to ensure that an e-learning course created for use in one learning management system will also function properly in other systems.

A central focus of the **IMS Global Learning Consortium** is how learning content can be tagged so that it can easily be discovered and reused, whether in a single system or across multiple, disparate systems. The various IMS specifications (http://www.imsglobal.org/specifications.html) are at the root of terms like *reusable learning object* as well as the most current approaches to interoperability. It should be noted that IMS standards are based on the extensible markup language, or XML, specification created by the World Wide Web Consortium (W3C). XML is the language used for tagging learning content objects.

The **Shareable Content Object Reference Model, or SCORM**, is perhaps the most widely recognized set of standards in the e-learning world. It unites standards from AICC, IMS, W3C, and other sources to create a general model for defining, packaging, and managing learning objects. An LMS that is SCORM-compliant should provide the ability to import, launch, and track a lesson or course that has been developed according to the SCORM model. Additionally, an LCMS, or an LMS that features content management capabilities, should be able to recognize and manipulate the shareable content objects, or SCOs, which comprise a piece of learning content.

Medbiquitous (http://www.medbiq.org) is an organization focused on leveraging XML to establish a set of interoperable standards exchanging educational content and tracking learner activities and profiles as part of healthcare education and competence assessment. We included Medbiquitous as part of the survey based on our knowledge that many healthcare associations are already active in e-learning.

Section 508 (http://www.section508.gov) refers to the Rehabilitation Act of 1973 and subsequent amendments designed to address the accessibility of electronic and information technologies, including the Web, by people with disabilities. Federal agencies are required—with some limited exceptions—to meet standards defined under Section 508 when purchasing electronic and information technologies, which means that any entity hoping to sell to the federal government must ensure that its products comply to the standards. Requirements aside, many developers and consumers of e-learning feel that compliance with Section 508 is simply the right thing to do. For additional information on Section 508 as it relates to e-learning, see http://www.access-board.gov/sec508/e-learning.htm.

Authoring tools
Among the organizations surveyed for *Association Learning + Technology*, Microsoft PowerPoint was the indisputable frontrunner. Adobe Flash, tools built in to the association's LMS or LCMS, and Dreamweaver round out the top four.

PowerPoint — 75.4%

Adobe Flash — 30.0%

LMS or LCMS tools — 18.7%

Dreamweaver — 15.8%

Does the LMS provide the ability to author learning content?
Half of the twenty LMSes provide content authoring as a standard feature, and five do not offer it at all.
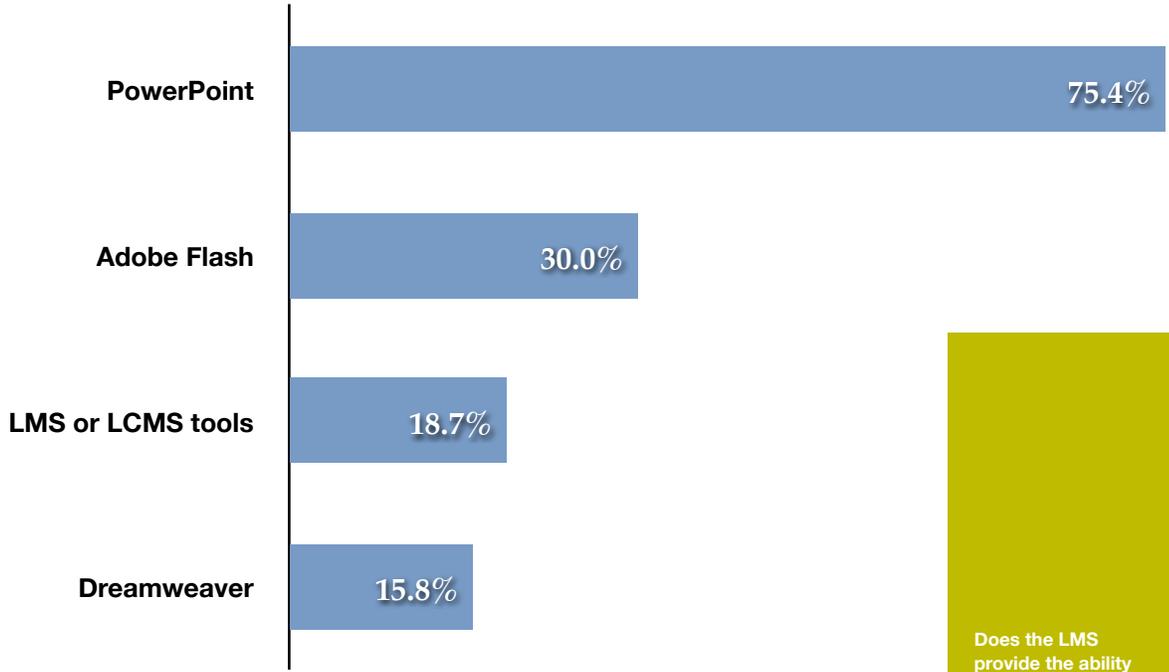
Content Authoring

While content delivery, tracking, and reporting are the most fundamental activities associated with a learning management system, content has to exist before these activities occur.

In the *Association Learning + Technology* report, we note a range of tools organizations use for developing e-learning. PowerPoint leads the pack by a good margin—not surprising given that PowerPoint is the starting point for most Webinar content as well as for many off-the-shelf course development tools. Adobe Flash is the next most popular tool, but with only 30 percent indicating they use it, it's a distant second to Microsoft's product. As HTML5 gains ground, we expect to see use of Flash decline. LMS or LCMS tools come in third overall, but among organizations that have actually implemented an LMS or LCMS, they jump to second position—44.9 percent—behind PowerPoint's 71.0 percent.

We asked LMS vendors to indicate whether their system includes any tools for authoring content. Also, given the importance of PowerPoint, we how their systems accommodate PowerPoint content for course authoring.

Pie chart values: 10, 2, 3, 5

- ● **Standard**
- ● **Semi-standard**
- ● **Third-party**
- ● **Unavailable**

Pie chart values: 9, 3, 5, 1, 2
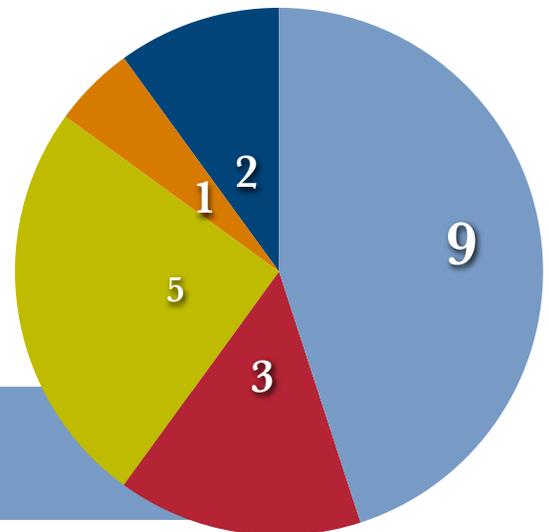
Does the LMS provide import options to automatically repurpose Microsoft PowerPoint content into learning objects in the system?
Nine of the LMSes provide such import options by default.

- ● **Standard**
- ● **Semi-standard**
- ● **Third-party**
- ● **Completely custom**
- ● **Unavailable**

Selling E-learning

One of the key ways in which association e-learning differs from online education and training in the commercial corporate sector is that most associations look to e-learning—and to education in general—as a source of non-dues revenue. E-learning is thus a line of business rather than a cost center for most organizations. At a minimum, it needs to operate on a revenue-neutral basis, bringing in enough income to cover costs. For many organizations, it also needs to contribute positive revenue to the bottom line.
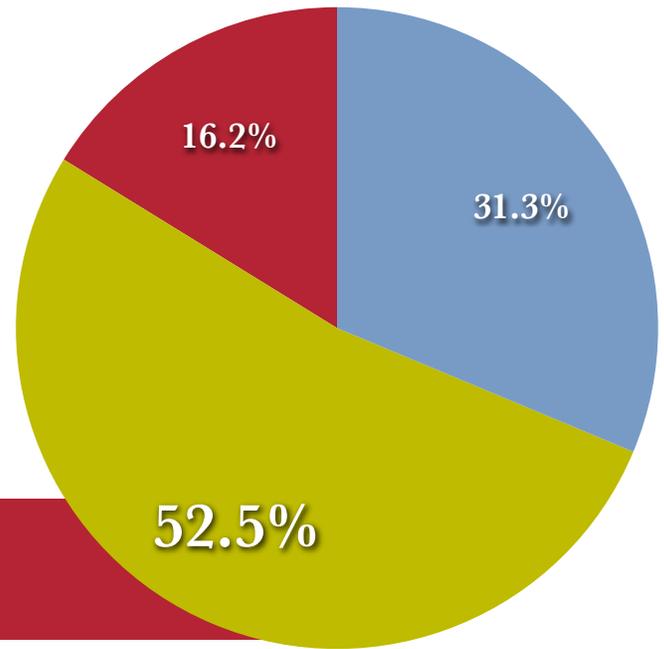
What are your organization's financial goals for its current e-learning offerings?
According to our *Association Learning + Technology* report, the vast majority of association e-learning programs must be at a minimum self-sustaining.

16.2%

31.3%

52.5%

- 🔵 **Must be self-sustaining but profitability not required**
- 🟡 **Must be self-sustaining and profitable**
- 🔴 **Doesn't need to be self-sustaining (costs subsidized)**

Given the existence of this revenue imperative in the sector, one of the important components of our LMS research was to understand the e-commerce capabilities of each system included in the report.

Starfield is the only system profiled that does not support automatic enrollment into a course based on an e-commerce transaction. We also asked vendors to provide information about the specific types of transactions that can be handled by e-commerce in their systems. The following chart illustrates the availability of different types of e-commerce transactions across the group of systems this report profiles.

An important point about e-commerce, in general, is that many associations already have e-commerce in place, whether through their association management system or another solution. It is often preferable, therefore, for the learning management system to integrate with the existing e-commerce solution. In these cases, the application programming interfaces (APIs) available for the LMS as well as the vendor's experience with integration are more important than any built-in e-commerce capabilities the LMS offers.

Which types of e-commerce transactions are available through your LMS?		Standard	Semi-standard	Third-party	Completely custom	Unavailable
	Provides for secure transactions (e.g., via SSL)	17	1	1	0	1
	Handles transactions for online courses	17	1	1	0	1
	Handles transactions for other online items (e.g., PDF study guides)	12	3	1	2	2
	Handles transactions for physical items (e.g., books or CDs)	9	2	1	5	3
	Automatically handles payment by credit card (no manual intervention needed)	17	0	1	1	1
	Handles payment by check (manual intervention needed)	11	3	1	1	4
	Handles payment by invoice (manual intervention needed)	12	2	1	3	2

Continuing Education and Certification

Whether to award some form of credit for e-learning is an important decision both operationally and strategically for an organization. From an operational standpoint, there is typically a significant amount of footwork to be done simply to be accredited for providing continuing education credits—even for a certification or credential maintained by the association itself—and usually there are reporting requirements to be followed once accreditation is established. Even relatively simple certificate programs that do not offer continuing education credit can generate a significant amount of operational overhead.

Along with the ability to support revenue generation, one of the most significant benefits a learning management system can offer to an organization is increased operational efficiency in managing various aspects of awarding and issuing credit. We asked vendors to indicate whether their systems could handle both simple and complex scenarios as well as to provide a range of information about the types of activities to which credit could assigned.

- Does the LMS support *simple* credit scenarios? That is, can an administrator assign, to a single course, a single credit value (e.g., one continuing education unit, or CEU), which is awarded automatically to end users on successful completion of the course?
- Does the LMS support *complex* credit scenarios? That is, can an administrator assign, to a single course, multiple credit values (e.g., multiple credit types or different credit amounts based on the end user's state of practice), and the appropriate credit type and amount is awarded automatically to end users on successful completion of the course?

Which type of credit does your organization currently offer or plan to offer for e-learning? Check all that apply.
The majority of organizations offering or planning to offer e-learning also award or plan to award some form of credit.

Continuing education (CE or CEU)
- Current e-learning: 58.2%
- Planned e-learning: 59.1%

Continuing medical education (CME)
- Current e-learning: 14.7%
- Planned e-learning: 18.8%

Continuing legal education (CLE)
- Current e-learning: 13.9%
- Planned e-learning: 9.7%

Continuing professional education (CPE)
- Current e-learning: 17.7%
- Planned e-learning: 19.4%

Certificate of successful completion
- Current e-learning: 61.0%
- Planned e-learning: 76.3%

Credit towards a credential
- Current e-learning: 56.2%
- Planned e-learning: 56.1%

Credit towards a degree
- Current e-learning: 5.1%
- Planned e-learning: 6.7%

Legend:
- Current e-learning
- Planned e-learning

Some of the systems profiled in this report also offer options for tracking certification paths as well as for automatically directing a learner to the courses needed to support a particular certification or competency.

Overall, management of continuing education, certificates, and certification paths can be one of the most valuable aspects of implementing a learning management system, but the true capabilities of a particular system in these areas can be difficult to assess. During the LMS selection process we strongly recommend that organizations map out clear business requirements and use cases in these areas and ask each vendor to provide a detailed demonstration of how the LMS supports these requirements and use cases—and how any gaps might be filled.

Does the LMS support simple and complex credit scenarios? Eighteen of the 20 LMSes support simple credit scenarios. Twelve support complex ones.

Complex — 12
Simple — 18
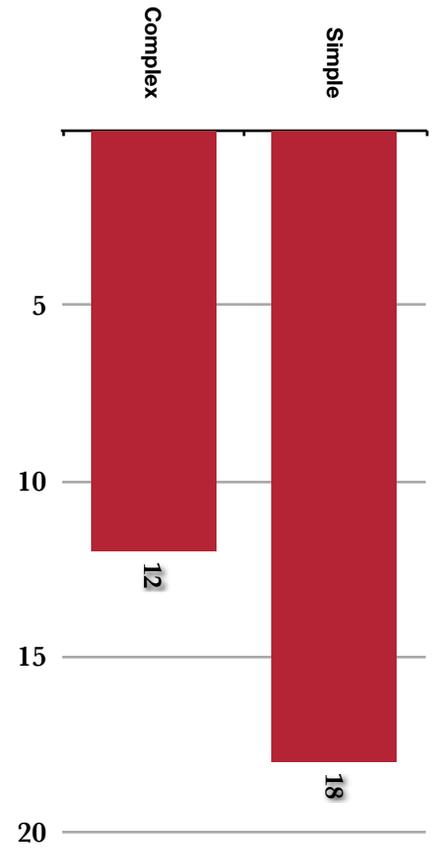
To what types of learning content can credit be assigned?
Eighteen of the LMSes can assign credit to content they deliver. Only two LMSes do not provide the ability to assign credit to any learning content.

Content delivered by the system — 18
Content the system has prior knowledge of but does not deliver — 17
Content the system does not have prior knowledge of and does not deliver — 12
The LMS does not allow credit to be assigned to learning content. — 2
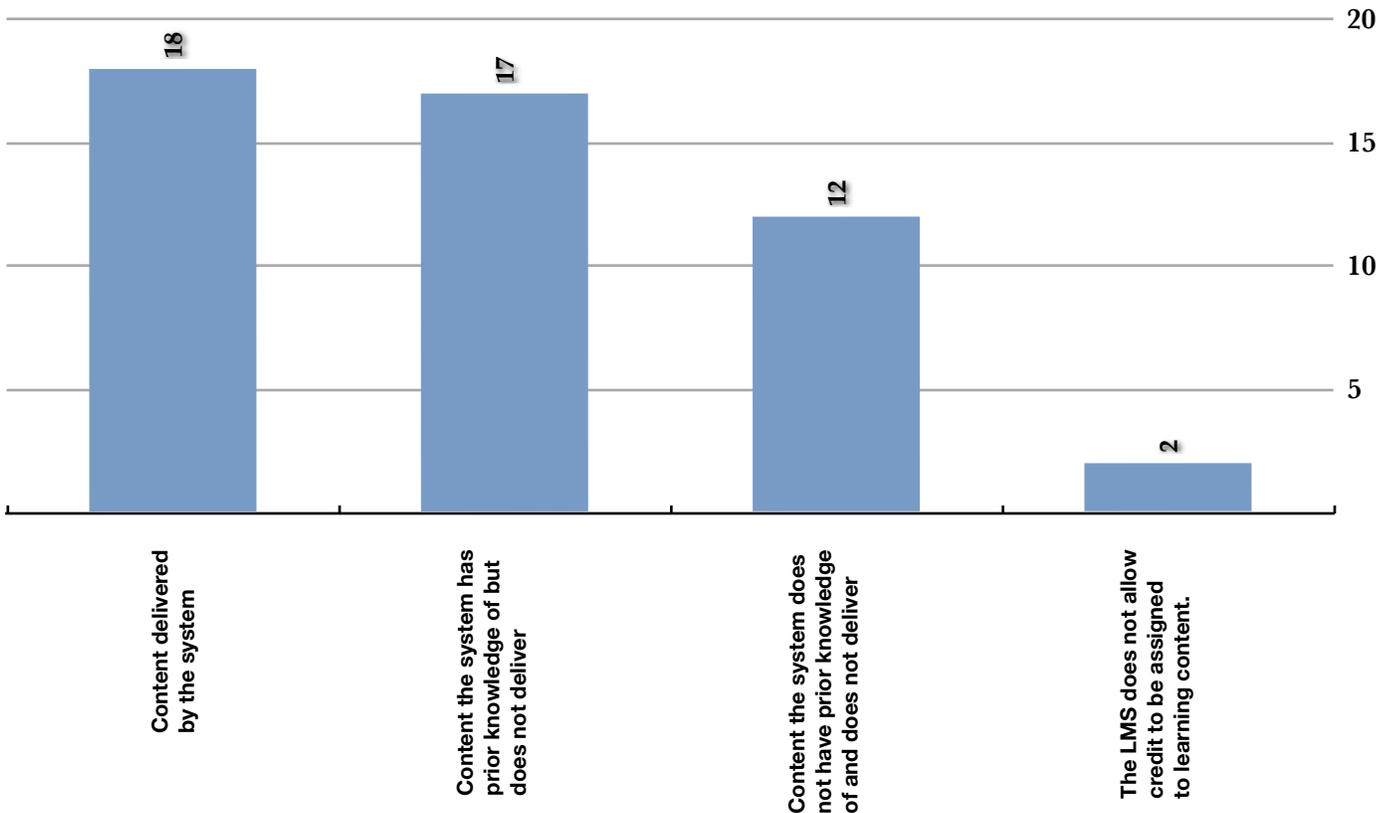
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Jeff is an award-winning teacher, author of the highly popular *Learning 2.0 for Associations*, and co-author of *Shift Ed: A Call to Action for Transforming K-12 Education* (www.shiftedtransformation.com), published by Corwin. His next book, *Leading the Learning Revolution*, will be published by AMACOM in January 2013. He has served on ASAE's Professional Development Section Council, as well as on the research committee of the eLearning Guild

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Jeff speaks frequently about the impact of new technologies on business, education, and society in general. More information about his speaking is available on his personal Web site at www.jeffthomascobb.com.

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Celisa has led the development of successful online education sites with smaller groups like the Frameworks Institute and the Alliance of Chicago Community Health Services and large national and multinational organizations like the American Red Cross, the American College of Radiology, the Society for Human Resource Management, and WebJunction, an initiative of the Bill & Melinda Gates Foundation.

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A veteran of the e-learning world, Celisa has served on the research committee of the eLearning Guild and, multiple times, as a judge in Brandon Hall's annual e-learning awards. She currently serves on ASAE's Professional Development Section Council.

Celisa is a published poet (www.celisasteele.com).