Creating a Learning Technology Roadmap: Maximizing Efficiency While Boosting Business Effectiveness

Part II

Consolidating your learning architecture – and adding cloud computing where appropriate – can provide knowledge where and when it is needed to increase business agility and advance employee retention.
Executive Summary

Effective learning development requires clearly defined functions, processes, methodologies, systems and tools. Traditionally, many large global organizations have taken a fragmented, decentralized approach to managing the learning development needs of their internal groups. For example, it is not uncommon for these institutions to operate more than one learning management system (LMS), learning portal, learning content management system, assessment management system and virtual learning environment.

This is no way for winning organizations to develop talent. What is needed industry-wide is a clear vision and a strategy for formulating a learning technology roadmap before implementation. At a minimum, such a strategy should incorporate the following objectives.

- Alignment with organizational, business and talent goals.
- Extensibility to meet current and future learning needs.
- Near-term compliance requirements, with an eye on regulatory developments.
- A learning architecture that is not only intuitive but also easy to use.

As we have learned in our engagements with clients in the field, a consolidated learning architecture that takes into account an organization’s distinctive needs can help reduce costs and increase agility. To the extent that organizations can insert cloud sensibly into their learning architectures, the more flexible and efficient they will be. This white paper is the second in a three-part series that covers the future of learning. (To learn more about m-learning, read our first installment, “Mobile Learning: Driving Business Results by Empowering Employees in the Moment”).
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Toward a Consolidated Learning Architecture

“How can we increase our business effectiveness by providing the right learning intervention just when the learner needs it?” This is the key question facing corporate learning and business leaders today. Social, mobile, analytics and cloud (the so-called SMAC Stack\textsuperscript{TM}) technologies are enabling new learning models. While there are still areas where classroom training is the best option, the focus now is primarily on blending formal, social and self-motivated learning models.

These developments are shaping “future of learning” conversations in a diverse array of segments, from the corporate world through higher education and government, around such questions as:

- “What should the new corporate learning structures encompass?”
- “How should we transform our learning organization?”
- “How should our learning infrastructure evolve?”
- “What learning programs do we keep and what do we retire?”
- “Is mobile learning a candidate for my organization?”

Answering the questions above involves careful analysis of numerous considerations, such as choice of learning technology, mobile enablement, learning analytics for executive dashboards and multi-lingual content enablement.

As learning organizations strive to become more lean and agile, employee engagement is becoming more complex due to an increase in the amount of information employees need to perform their jobs. For instance, human resources (HR) policies, employee engagement rules, code-of-business ethics and compliance requirements have increased exponentially over the last decade, not to mention the business-related knowledge today’s employees need to succeed. To address these diverse organizational needs, internal learning organizations are joining forces with their IT functions to deploy services such as technology-enabled learning. For the learning organization, it all boils down to how these capabilities are developed, communicated, categorized and tracked.

There is a dynamic shift in the way technology plays its role today. In the recent past, learning organizations managed their activities around technologies such as learning management systems (LMSs). Learners had to adapt their learning styles to how the system deployed training. Compliments of the cloud, today’s learning systems are now much more learner-centric (Figure 1). Depending on business needs, the learning environment can be structured to include traditional learning, e-learning, social learning, gamification, mobile learning (m-learning) and video-based learning.

Learner-centric models call for clearly defined learning processes, methodologies, systems and tools. Traditionally, many large global organizations have used decentralized models to manage the learning and development needs of their internal divisions and business units, as well as support partner education and geographical requirements. Most large organizations run on more than one LMS, along with a variety of other platforms that can include multiple learning portals, learning content management systems, assessment management systems and virtual learning environments.
Disjointed Learning Environments Take a Toll

A disconnected setup within a learning organization typically results in inconsistent workforce development and skill enhancement. In this scenario, organizations often encounter the following challenges:

- Lack of common standards and procedures.
- Lack of an organization-wide learning platform.
- Lack of an organization-wide learning support model.
- Duplicate systems, tools and efforts.
- Multiple learning systems that follow multiple protocols to search and access the learning content.
- Non-standardized learning content scattered across learning systems.
- A complex infrastructure with multiple legacy learning systems integrated with core systems such as HR and finance.
- Lack of consolidated metrics, reporting and analytics.
- High capital expenditures (CapEx) and operational expenditures (OpEx) pertaining to learning systems and platform costs.

As depicted in Figure 2, a centralized learning architecture is one possible solution. It provides the standardized learning needed to deliver efficiencies across the distributed enterprise, while allowing some autonomy for regions to make decisions that are in sync with local employee and market requirements.
As decisions are considered for a centralized learning architecture, thorough analysis and the creation of a “current-state-to-future state” roadmap are critical to aligning learning technology, content and deployment strategies with business needs. The learning architecture depicted in Figure 2 contains the full spectrum of elements to consider when planning such an architecture. Most of these services are now available for delivery via the cloud – whether public, private or hybrid.

The first element to consider is the deployment – whether on premises or on demand – of learning systems, technologies, tools and applications, including the LMS.
enable tight integration among all learning systems and content-authoring tools. Content management is the next variable to evaluate. Learning content-management systems (LCMSs) should sit atop this technology stack and feed content to the LMS.

Unified communications (UC) focuses on learning delivery mechanisms. If a learning organization has new content available for its employees, it may want to ensure that they receive the content (or schedule the training module) with a presence-sensing tool such as Microsoft Lync.

Next up for consideration: the technology needed to support cloud-powered social learning structures. Informal social learning structures are a primary way for employees to receive knowledge. These structures might include discussion forums, blogging and microblogging tools, and collaborative workspaces.

Key benefits of replacing disparate learning systems with a common learning architecture include:
- A one-stop solution for learning across the enterprise.
- Increased user adoption.
- A reduction in total cost of ownership (TCO) to enable effective use of the training budget.
- Centralized, standardized learning management and training processes across divisions and geographies for internal and external user bases. Centralized training data across divisions.
- Compliance with all legal and regulatory requirements.
- Scalable support for the newly combined organizational needs and “future of learning” plan.
- Provisions for tracking and reporting regulatory training requirements, mitigating risks caused by using disparate systems, and enhancing the quality and timeliness of training.

Based on our experience with clients, typical cost savings from system consolidation ranges between 15% to 45% of organizations’ overall training budget over a period of one to two years.

All of the above requires robust, tight integration with other corporate/organizational systems such as human resource management (HRMS), financial and vendor management.

Creating Your Organization's Learning Architecture

As illustrated in Figure 2 (previous page), an organization's learning architecture has many elements. One critical aspect is the choice of a learning technology vendor. Three large HR technology suppliers are currently competing to dominate the on-demand, cloud-based part of the market: Taleo (now owned by Oracle), Success Factors (now owned by SAP) and Workday (an emerging software as a service (SaaS) provider led by PeopleSoft co-founder David Duffield). This trio is just the tip of the iceberg. Large and mid-sized companies still use products from numerous vendors, which requires continuous and costly maintenance — all the more reason to go with a cloud option and avoid maintenance altogether.
Cognizant’s OneLearning framework has helped our clients consolidate disparate learning systems. Figure 3 below illustrates how a typical screen appears to a user within the OneLearning framework.

OneLearning is a multi-device, multi-modal adaptive learning environment that integrates all learning platforms within an organization. It provides a one-stop, single view for the user to access all of the organization’s training materials and learning systems, and is powered by business intelligence that provides relevant information to the user based on his or her job profile.

A multitude of learning systems can be integrated with the OneLearning framework via a variety of methods (including Web services, translators or through the use of middleware, depending on the maturity level of the systems installed). Systems that can be integrated with OneLearning range from traditional LMS, Microsoft SharePoint portal, legacy ERP, knowledge repositories, wikis, blogs, Twitter posts, YouTube and so on. The OneLearning framework is accessible through a multitude of devices.

We recently helped a large pharmaceutical company strategize and roll out an enterprise-level LMS. The LMS replaced a mix of legacy systems for the company’s divisions, spread across 86 countries, by migrating over six million learning records and 25,000-plus courses in a short turnaround time.

The combination of the legacy systems being decommissioned, along with the deployment of mobile and social learning capabilities, resulted in the company realizing about US$1.5 million in cost savings annually. When all of the legacy learning systems are decommissioned, the estimated cost savings are expected to amount to approximately US$3 million per year.
Considerations for Cloud

Adoption of cloud-based learning technology is a hot topic among learning executives. Following are questions to consider during the evaluation stage:

- How might our plan to move to the cloud be affected by the ongoing consolidation of learning systems that has been underway in the market during the past decade? How stable is the vendor/provider from a financial standpoint, and what length of commitment will we make?
- Will the cloud-based solution be flexible enough to meet our changing business needs?
- Will a cloud implementation allow for any required customizations?
- How easily can the cloud-based learning applications be integrated with key internal systems and other cloud-based third-party applications?

By implementing a holistic, forward-looking and well-structured learning strategy that incorporates cloud where appropriate, our experience shows that an organization can look forward to the following benefits:

- Increased learner motivation resulting in improved learner performance and retention of content.
- Improved compliance with regulatory requirements pertaining to learning.
- Optimal utilization of learning and development resources (people, systems and infrastructure).
- Improved reusability of learning materials.
- Reduced cost of training.
- Better scalability of solutions to meet future demands.
- Improved ability to generate meaningful learning analytics.
- Continuous improvement through effective learning analytics.
- Increased return on investment from the learning and development spend.
• Enhanced workforce capability-building to meet changing business demands.

Learning strategies are unique to an organization. It is therefore important for yours to consider its industry status, budget, overall learning trends and strategic direction as key for developing an appropriate enterprise learning architecture. The development of this ecosystem must be driven by a comprehensive enterprise initiative. Learning strategies should be iterative and designed to evolve over time. The key is to ensure that the investment is not made obsolete by technology and organizational changes. Your learning technology strategy should be business-driven to allow for effective engagement of employees.

In conclusion, the following questions should be considered when planning a forward-looking learning technology strategy:

1. What is the business driver for the enhancement of the learning technology infrastructure? What are the current pain points at each stakeholder level?
2. Does our learning technology infrastructure meet the social, collaborative and mobile learning needs of our organization, apart from traditional learning methods such as eLearning, classroom sessions and so on?
3. Can we generate insightful learning analytics that not only help improve learning effectiveness, but also the overall functioning of the learning and development organization?
4. Can we move learning applications to the cloud to realize advantages such as cost savings, platform stability and availability? What will be our ROI? What are the risks associated with it?
5. How will our end users from various business units/regions/departments adapt to the tools and technologies? What are the change management/communication measures that should be considered?
6. What is our timeline and implementation roadmap to attain the “future of learning” state for this organization?

Given that the learning architecture consolidation and/or migration to the cloud are strategic and future-focused, this exercise needs to be carefully planned and executed to derive the desired benefits. The final installment in our three-part Future of Learning white paper series will focus on game-based learning.

Footnotes

1 A learning management system (LMS) is a software application or Web-based technology used to plan, implement and assess a specific learning process. http://searchcio.techtarget.com/definition/learning-management-system.

2 Cognizant’s OneLearning solution also won the 2012 Brandon Hall Silver Award under the Best Advance in the Unique Learning Technology category.
About the Authors

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