

THE TECHNOLOGY STACK FOR CONTINUOUS LEARNING

Bersin by Deloitte has researched technologies used for learning – from vendors, learning leaders and learners. The resulting idea is the L&D Tech Stack. Dani Johnson explains how we can leverage the results to stay relevant.

It is news to precisely no one that technology has changed the way we do business. Twenty years ago, organisations were just starting to allow internet access for employees. Today, we can't imagine doing our jobs without it. Back then, information and learning opportunities were controlled by the business. Now, we see employees leveraging technology to take control of their own learning path – often without the knowledge or blessing of the Learning and Development (L&D) function.

Technology and proactive, newly empowered learners are encouraging the L&D function to change things up. L&D is

adopting new learning methods that appeal to employees, make learning more efficient, and better meet business needs. L&D professionals are becoming curators of learning opportunities rather than creators of learning content. And they're becoming much more intentional about the technology decisions they make.

To help learning organisations become better at providing and facilitating learning, we have spent the past six months gathering information about technologies used for learning – from vendors, from learning leaders, and from learners themselves. The resulting idea is what we call the L&D Tech Stack.

THE L&D TECH STACK

In the IT world, a tech stack is a set of software or technology that works together to deliver a solution. So, an L&D Tech Stack is the sum of all technology that an organisation leverages to deliver L&D solutions.



The diagram (below) shows these technology categories mapped to the four major contexts in which people learn: education or formal learning and training; exposure to professional networks; on-the-job experiences; and on-demand, through the work environment.

An L&D Tech Stack includes *all* of the technology that organisations use to develop employees, both those that are designed specifically for the purpose of learning (shown in the solid circles), and technologies that were not created specifically for learning, but can be adapted for that purpose (shown in the outlined circles). Let's break those two categories down further.

TECHNOLOGIES DESIGNED FOR LEARNING

Learning technology has exploded. In the first quarter of 2015, almost a billion dollars (that's a one with nine zeros) was invested in learning technology companies. Some of the most popular areas for that investment were corporate training, career planning, and language learning¹.

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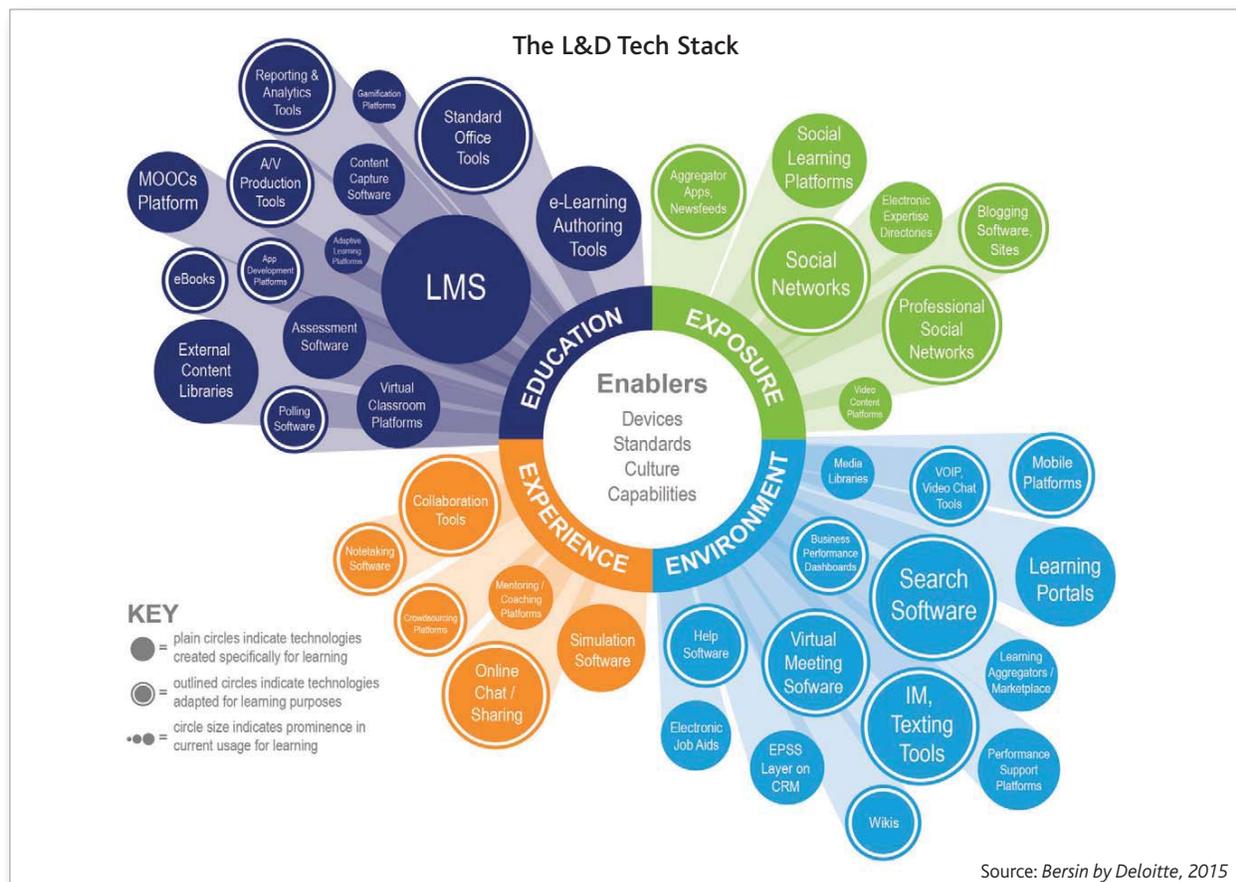
enabling the development of employees. These technologies generally show up on the balance sheet and need to be planned for and implemented, often with very careful alignment to the business, the IT department, and other major stakeholders.

With all of the activity and investment in learning tech, it's no surprise that new technology categories have popped up. Some of the more interesting ones include:

- **Adaptive Learning Platforms:** Organisations are realising that employees both crave and need flexibility in their learning paths. Adaptive learning adjusts information that is presented to learners based on their needs, as indicated by their responses. For example, Allegiant Air is starting to utilise adaptive learning to update pilot training to ensure that technical standards are maintained while also training human factors like situational awareness, decision-making, judgment, and communication².

- **Mentoring/Coaching Platforms:** Learning technology companies that focus on facilitating coaching relationships are also emerging. Organisations that utilise coaching and mentoring technologies are better able to match employees with appropriate coaches, get voluntary participation, and provide coaches and mentors with tools to be more effective.

- **Aggregators and Marketplaces:** There are many ways employees educate themselves – formally and informally – and companies have struggled for years to understand how best to capture a complete picture of learning in their organisation. An emerging category of providers are utilising portals and marketplaces to aggregate formal and informal employee learning activities from MOOCs, articles, books, blog posts, work experience, conferences, classes, and courses offered in the Learning Management System (LMS), to give business leaders (and employees) a complete view of their skills and



knowledge. These platforms are leveraging tools like ratings, rankings, gamification, following, messaging, path creation and recommendations to make the experience sticky, social, and effective.

Several organisations also leverage existing technologies for learning and development purposes. We will take a look at those technologies next.

TECHNOLOGIES ADAPTED FOR LEARNING

Technologies adapted for learning are those that aren't specifically created for learning, but serve the purpose of developing employees (in the diagram, these technology categories are indicated with outlined circles). These technologies generally fall into two categories: those that organisations use for other purposes that can be leveraged; and those that are generally used for learning and development informally within the organisation, by either individuals or teams.

Three of the most common examples of leveraged technology are the standard word processing, spreadsheet, and presentation tools. While this set of technologies is generally purchased for other purposes, it can play a large part in learning about the creation of presentations and documents used in formal education, or tracking completion on spreadsheets. Other examples include tools in place for rapid or distance communication – instant messaging and texting tools and virtual meeting software.

Open technologies are those that are used informally within the organisation. These technologies are often free or inexpensive, and might even exist outside of an organisation's formalised technology infrastructure. They typically are adopted by employees and teams first.

Open technologies include social media platforms, aggregator apps and news feeds, microblogging sites, and crowdsourcing platforms. These technologies should not be overlooked, given that several of them often make lists of top tools for learning³.

Our conversations with learning leaders, vendors, and thought leaders have yielded some interesting examples of technology being adapted for learning, including:

- **Video:** Dyson uses video to train an entire generation of remote salespeople. While most organisations are familiar with using video for outgoing training activities (where learners passively watch best practices, etc.), Dyson is reversing the process – providing a 'perfect' example, and then getting its salespeople to submit videos of themselves (recorded with a

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smartphone) pitching the product to a customer. Since salespeople know they will be on camera, they spend significant time practicing before their final submission.

- **Bar Codes or QR symbols:** Manufacturing, skill-based, and product professions are utilising bar codes or QR codes for learning⁴. Bar codes or QR codes are attached to objects, such as products or machinery. Employees utilise their mobile devices for access, and are then provided with a curated set of learning activities – how-to videos, product spec sheets, repair instructions, etc. Some LMS providers are even incorporating this technology into their overall offering.

- **Social News Aggregators:** Understanding what's going on in the world and in the industry helps employees be more proactive and pre-emptive on the job. Aggregator apps, news-feeds, and microblogging sites allow employees to choose certain publications or set filters to help curate the millions of articles and videos available each day.

BUT HOW DO I...

We hardly ever hear from L&D leaders that they are not interested in adopting new technologies. We do, however, often hear that they are frustrated by the obstacles they face when trying to implement new technologies. But there are some that make it work. Innovative ways we've heard of introducing new technologies include:

- **Find forward-thinking business units:** Leverage a business unit's desire to try something innovative and new by partnering with them to try out new technologies that may be appropriate for the rest of the organisation.

- **Pilot new technologies:** Many providers will let organisations try new technologies with a small pilot group before purchasing or implementing them broadly. Work with willing providers to test these technologies to determine fit, usefulness, and acceptance within your organisation.

- **Piggy-back on the IT department:** We talked to one learning leader who said she has formed a very tight relationship with her IT department because she wants to know when new technologies become available in other parts of the organisation. This strong relationship gives her a leg up when trying to find technologies for learning.

- **Figure out what's already being used:** Employees have a way of deciding which technologies will help them learn what they need to learn in order to better do their jobs. Decide which technologies are already informally in use, how they are acceptable to the business and to employees, and figure out ways to use them.

SO WHAT?

Learners are already leveraging technology but L&D in general is struggling to keep up with learner preferences and business needs. It doesn't have to be that way. L&D can stay relevant and effective by considering the technology categories in the L&D Tech Stack, experimenting with them in their own function to determine how to use them effectively, and implementing them intentionally within the broader organisation.

References

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Dani Johnson is VP, Enterprise Learning Research at Bersin by Deloitte, Deloitte Consulting LLP
<http://home.bersin.com/>
 Twitter: @dani2 @Bersin