The Art and Science of Designing a Learning Technology Ecosystem

Authors: Dani Johnson and Priyanka Mehrotra
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Key Findings

• **The L&D function is under increasing pressure and faces greater expectations from organizations as well as employees.** As organizations face increasing internal and external challenges and employees seek more and more control of their development, organizational leaders are investing in their L&D functions in order to enable them to rise and meet the changing needs.

• **Learning leaders are looking to create and design ecosystems that meet their specific needs and enable them to create conditions for employee development.** With the growing number of choices in the market, L&D leaders have more options than ever before, making it easier to select technologies and design ecosystems that work specifically for them.

• **Having a philosophy increases the potential for the success of an ecosystem.** Leaders who understand their organization and employee needs and create a philosophy to meet those needs make better technology decisions and have a better chance of creating a sustainable and functional ecosystem.

• **The emphasis on learning technology when thinking about ecosystems is too narrow and is likely to provide a lopsided view.** A learning tech ecosystem is more than the sum of total of the learning technologies. It encompasses technology that is bought specifically for learning, business technology that is adopted for employee development, and enabled technology that employees use in their personal lives for learning.

• **Basic learning tech ecosystem structures depend on your company's characteristics.** Through our interviews, 3 ecosystem structures were identified: Platform, Central System, and Pure Ecosystem. Which one is most appropriate for your organization depends on its goals and characteristics.
• **Learning tech ecosystems don’t just happen; both internal and external cooperation must exist to make them successful.** Ironically, it’s the people relationships that make learning tech ecosystems work. Stakeholders inside the company ensure ecosystems are used while strong relationships with vendors ensure that they evolve and develop properly.

• **Learning tech ecosystems are not a one-and-done activity.** They need constant care and feeding. L&D functions should constantly be monitoring and adjusting their learning tech ecosystems to ensure it is meeting business and employee needs and addressing changes in the market.
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The Rise of Learning tech ecosystems

Ten years ago, the most complex questions learning leaders faced about their learning technology was which LMS they were going to use and how much it was going to cost. That isn’t true today. Now, learning leaders are faced with both higher expectations and unprecedented choice when it comes to creating a learning environment. Why?

Expectations

Expectations of L&D functions have increased. Whereas they were once only responsible for creating and disseminating training, organizations and individuals now expect more.

Organizations Need Results

Industries are constantly being disrupted, causing organizations to rethink both their products and their business models in order to properly compete. This has affected not only how organizations compete, but if they compete at all: nearly 9 of 10 Fortune 500 companies in 1955 are gone, merged, or contracted, demonstrating the market disruption and churning in the last 6 decades.¹

Likewise, organizations face changes internally. They have flatter structures, greater connectivity, increased collaboration, and thinner organization walls (e.g., gig economy workers). More work is done in teams, roles are increasingly more flexible, and there are fewer concrete career paths. As structures and job requirements change to help the organization compete, L&D is forced to rethink development solutions.

solutions – customizing them to specific challenges and ways of doing things their organizations face.

The good news is that the C-Suite seems to be doing what they can to enable the L&D function. As of 2019, only 27% of L&D leaders state “limited budget” as a top challenge. Additionally, 82% of L&D leaders report that their leadership actively supports learning programs.²

**EMPLOYEES WANT BETTER EXPERIENCES**

We have talked to nary a learning leader or vendor that is not aware of the expectations employees have of their organizations for learning and growth. According to LinkedIn’s 2019 Workforce Learning Report,

- 68% of employees prefer to learn at work
- 58% of employees prefer to learn at their own pace
- 49% of employees prefer to learn at the point of need³

Whereas the organization and L&D function used to have more control over who was taught what when, today, employees have essentially taken the reins. *They* want more control over how, what, and when they learn, and technology has enabled them to do so.

**Choice**

Learning leaders also have more choices than ever before. Gone are the days when L&D functions vetted and chose one LMS to serve the entire organization. They are now choosing from a wide variety of technological solutions, and the many vendors that offer those solutions.

How much choice do they have? We keep a fairly close eye on the learning technology landscape. Ten years ago, there were roughly 60 players in the market (that still exist today). Today, we have a vetted list of over 200 vendors, with another 40 on our list to talk to. That’s a lot of choice.

² “2019 Workplace Learning Report,” LinkedIn Learning, 2019
³ “2018 Workplace Learning Report,” LinkedIn Learning, 2018
To make it even more complicated, it’s more difficult to put vendors in boxes. Whereas offerings used to fall neatly in the LMS or Microlearning or Coaching categories, new technologies span many categories, making it harder for learning leaders to ensure the right solution without doubling up unnecessarily.

These expectations and choice have resulted in a sort of panic when it comes to the technology that enables employees to learn. Many leaders go after the new and shiny; many shy away from choices for fear of making the wrong ones; and many have failed to acknowledge the changes at all, instead opting for the traditional one-platform system with little deviation or addition.

In the past few months, we have interviewed over 30 very thoughtful learning leaders about their learning tech ecosystems. They were incredibly generous with their time and candor, helping us to understand not only the challenges they face in choosing and implementing technologies, but their best ideas for doing it better.

This paper outlines the findings of those 30 interviews and provides examples of real-life learning tech ecosystems. The discussion is divided up as follows:

- Philosophy
- Structure
- Sustainability
- Evolution

Source: RedThread Research, 2019
Philosophy: Intentionally creating an ecosystem

In our interviews with learning leaders for this study, one of the strongest recurring themes was that of philosophy or strategy. As it turns out, having a strong philosophy or strategy at the heart of the ecosystem increases its scope and its potential for success.

While intentional leaders we spoke with all have a unique take, their philosophies differed from the norm in three key areas:

• They focus on enabling instead of providing
• They focus on designing instead of assembling
• They focus on incorporating all tech, not just learning tech

Moving forward, we discuss these three ideas in more depth and provide some useful tools for grounding an ecosystem with a strategy or philosophy.

Enabling, not just providing

When most leaders talk to us about their learning tech ecosystems, they explain them in terms of the technology itself: LMS, LXP, LCMS, analytics, creation tools, etc. This generally indicates that leaders are thinking about their responsibilities in terms of what they can provide versus what they can enable.

And L&D must start thinking in terms of enabling – there is no time for anything else. Workplace skills continue to have shorter shelf lives and organizations are having a difficult time even understanding what skills will be needed in the short term, not to mention longer term. L&D has to enable workforces to do their own development instead of continuing to pretend that they have control of it all.
ACTIVITIES

As such, L&D functions should be thinking in terms of what conditions or environment they need to create in order to encourage and motivate employees to learn and develop. In our many, many conversations with both learning leaders and vendors, we identified 6 activities L&D functions should enable.

**Image 2: 6 activities that L&D functions can enable**

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<tbody>
<tr>
<td><strong>Plan</strong></td>
<td>Enable employees to understand their career options and identify what it’ll take from a development standpoint in order to get there</td>
</tr>
<tr>
<td><strong>Discover</strong></td>
<td>Enable employees to find the types of opportunities and content that will take them in the direction they’d like their career to go</td>
</tr>
<tr>
<td><strong>Consume</strong></td>
<td>Enable employees to access and consume content</td>
</tr>
<tr>
<td><strong>Experiment</strong></td>
<td>Enable employees to practice new knowledge and skills</td>
</tr>
<tr>
<td><strong>Connect</strong></td>
<td>Enable employees to connect and share with each other and learn from each other</td>
</tr>
<tr>
<td><strong>Perform</strong></td>
<td>Enable employees to perform better on the job and learn while doing it</td>
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</table>

Enabling these activities should be the main goal of a learning tech ecosystem, and there are a remarkable number of ways that can be done.

FUNCTIONALITIES

In fall of 2018, we did a fairly in-depth study of the learning technology space. From that study we learned that tech categories — LMS, LXP, LCMS, content creation tools, and the like — were very frustrating to leaders who were trying to choose technologies. The categories were too broad, which made it difficult to understand exactly what the technology did, and how.

Using that information, we started asking vendors and leaders which functionalities, rather than which tech, made sense. We identified 30 different functionalities that align with the activities we introduced.
above, offering L&D functions lots of choices and a bit more clarity about what they needed and what was available.

**Image 3: Learning Activities and Enabling Functionalities: a Framework**

Using the framework above can help L&D functions understand not only what they have, but what is available, and what holes need to be filled. That said, the goal shouldn’t be to have every single functionality in the framework. Rather, organizations should carefully consider what their employees need and what their culture will support. Which brings us to our next point.

**A NOTE...**

We have included case studies throughout this paper. For each company we highlight, we have also included a graphic representation of their ecosystem using the framework we introduced above to both organize information and to allow for comparison across companies.
Those who participated in our research were generous with their time and thoughts, but also with their transparency, as they have let us show their actual ecosystems. Those ecosystems will look like the graphic above, and will outline both tech they bought for learning as well as tech adopted for learning.

**Designing, not just assembling**

The second philosophical shift we see in L&D functions intentionally creating their ecosystems is that they intentionally design, not just assemble. Without a strategy and a purpose for a learning tech ecosystem, it is often a loosely connected group of tools rather than a thoughtful extension of the overall employee learning experience.
Our interviews yielded two solid pieces of advice to ensure ecosystems are designed, not simply assembled.

**SIMPLICITY**

One of the best pieces of advice we heard in our interviews was this:

“Just because you can doesn’t mean you should: don’t be distracted by shiny things.”

L&D functions should choose technologies that will work for their organizations and appeal to their employees, which sometimes means that a simpler or less sexy solution is the right answer.

One way this manifests is when L&D functions implement “learning” technologies that mirror technologies that already have a solution internally.

For example, messaging has become an important way that organizations learn. Several technologies have either incorporated this functionality or created a stand-alone option for messaging for “learning.” We have seen very few examples of a “learning” technology trumping an existing and functioning system.

Instead, L&D functions should understand what is currently in use and enable it. This often means working with other departments and may mean giving up a bit of control, but it simplifies the overall employee learning experience and avoids creating additional noise.

**ACCOUNTING FOR ALL EMPLOYEES**

Ecosystem design should also account for all employees. In our interviews, we heard several examples of leaders struggling to meet the needs of the diverse groups they served.

While it may be tempting to always employ the latest and greatest technology, some thought should be given to restrictions that certain employee groups may have. For example:
• **Lack of hardware**: Deskless employees, contractors, and those without access to computers, laptops, phones, iPads, etc.

• **Bandwidth**: while large metropolitan areas generally enjoy fast and consistent Internet access, much of the world is still without this type of access.

• **Firewalls**: contractors, consultants, and others who may benefit from learning opportunities as well as employees who would like to learn on their own time are often locked out due to firewall constraints.

• **Unions**: protections for unionized employees may preclude them from taking lengthy training or training off the clock, which may change design parameters.

• **5-generational workforce**: 5 generations means that organizations may need to find solutions that appeal to all groups, on both ends of the spectrum.

This does not mean that all employees need access to all the same things; it does mean, however, that thought should be given to all restrictions for all groups, and chosen should provide employees what they need to continuously develop Image 4 provides some questions to ask yourself when designing your learning tech ecosystem.

**Image 5: Questions to consider when choosing tech for your ecosystem**

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<thead>
<tr>
<th>ORGANIZATIONS</th>
<th>EMPLOYEES</th>
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<tr>
<td>• What are the overall learning goals in the organization?</td>
<td>• How does this technology affect the overall user experience?</td>
</tr>
<tr>
<td>• With our ecosystem, what are we enabling and encouraging our employees to do?</td>
<td>• How do these technologies work together from a user experience standpoint?</td>
</tr>
<tr>
<td>• How cohesive is our tech ecosystem, and what holes do we need to fill?</td>
<td>• What data can we collect and use to make the experience better?</td>
</tr>
<tr>
<td>• How are we accounting for technologies that our employees are using for learning but aren’t “learning” technologies?</td>
<td>• Does this technology strengthen the signal or create more noise?</td>
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<tr>
<td>• What cultural aspects do we need to consider?</td>
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<tr>
<td>• What skills do we need to develop?</td>
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GETTING IT DONE

A multinational pharmaceutical company: Striking the balance between flexible and rigid

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<th>Company size:</th>
<th>Industry: Pharma/Chemical/Life Sciences</th>
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<tr>
<td>Enterprise</td>
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<tr>
<td><strong>Overall goals</strong>: Providing an elegant learner experience</td>
<td><strong>Challenges</strong>: Decentralized L&amp;D teams that make budgetary and technology decisions in isolation</td>
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Embrace the chaos and slow down. You don’t have to do everything tomorrow – Global Learning & Development, Associate Director

One of the main challenges for this multinational company has been trying to shift to a governance mindset and avoid duplication of efforts and technology. To that end, the company’s Global L&D function is working on centralizing their budgets and putting standards in place for learning across the entire organization.

Focused on next generation learning, the company’s Global L&D function is one of the few, among those we interviewed, that is actively looking into the experiment functionality, exploring the different vendors that provide AR/VR capabilities and experimenting with project marketplaces for the gig economy.

For the learning leaders at the company, employee experience is paramount when making decisions about their ecosystem. That is why their approach is driven by their underlying efforts to balance and incorporate compliance as well as professional development successfully.
Image 6: A multinational pharmaceutical company’s learning tech ecosystem

Source: RedThread Research, 2019
All tech, not just learning tech

One of the biggest mistakes we see L&D functions make in their quest to create an effective ecosystem is that they only take into account technology that shows up on their balance sheet – the tech they buy specifically for learning.

While those types of technology do tend to be a large part of most modern learning tech ecosystems, only recognizing them tends to provide a lopsided view of what is actually going on in the organization. We suggest that L&D functions consider three types of technology for their ecosystems:

- **Purchased tech**: what you buy specifically for employee development
- **Adopted tech**: tech your organization uses that can also be used for employee development
- **Enabled tech**: tech your employees use for learning in their personal lives

**PURCHASED TECH**

As the name suggests, tech you buy for learning encompasses those technologies that the organization invests in for learning and development purposes. This includes tech like the LMS, LCMS, micro-learning platforms, cohort or MOOC platforms, and the like.

Technology purchased specifically for employee development tended to be the main type of tech we discussed in our interviews. This makes sense: L&D functions have direct control and stewardship over these systems, and they’re often trying to evaluate its effectiveness to determine whether it is worth continued investment.

Tech you buy for learning is also the group where many leaders expressed the most concern and frustration. As we mentioned earlier, the learning technology landscape is complex and chaotic, and only getting more so.

(Incidentally, RedThread Research created the Learning Technology Landscape, an online vendor database that lists all learning vendors we have spoken to and organizes them by the framework we introduced above (functionality and activity) to help leaders...
understand which vendor has which functionality and where their technology solutions may overlap.)

**ADOPTED TECH**

Tech you adopt for learning encompasses technology that may not be purchased specifically for learning purposes, but that can be leveraged to serve that need. In this group, leaders told us they were using knowledge bases, Microsoft Office tools, analytics platforms, business chat and messaging tools, and other business technologies.

As L&D functions consider their current state learning tech ecosystem, they should consider these tools, as they generally do play a large role in helping individuals learn. In some cases, a business technology that is embedded in the organization and used broadly will be more effective than adding new technologies. One example may be using Teams or Slack channels rather than introducing a tool like Yammer.

**ENABLED TECH**

Tech you enable for learning is a step further removed even than adopted tech. These are tools that employees use regularly—in their lives as well as in their work. Examples of these may be YouTube, Whatsapp, Google or Bing, Twitter (we hear this one a lot), GitHub, and other systems that help employees learn and develop.

These tools are not often recognized by L&D functions because they have no control over them, no way of tracking them, and often no way of leveraging them from an organizational standpoint. In fact, in our 30+ interview, none of these tools made an appearance.

We mention them, however, because while they cannot be regulated and often cannot be leveraged, they provide a tremendous amount of value to employees. L&D functions should know what tools are used most often and do what they can to enable them (make them available through firewalls, send links to information and tools, etc.)

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While adopted tech cannot be regulated and often cannot be leveraged by the organization, it provides a tremendous amount of value to employees, and so should be enabled.
GETTING IT DONE

Centric Consulting: Building a virtual home base while being scrappy

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<th><strong>Company size:</strong></th>
<th><strong>Industry:</strong> Professional Services</th>
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**Overall goals:** Using wisdom to maintain financial responsibility when selecting new technology

**Challenges:** Restricted and limited budgets

Centric Consulting is a small, digital, business and technology consulting firm, comprising of 500 full-time employees. As a virtual organization, historically, one of their main challenges in designing an ecosystem is selecting the right technology and making a business case for the ROI.

As a consulting firm, Centric Consulting bases every decision to buy technology on understanding how it will eventually help their clients. For that reason, Centric Consulting established an ecosystem that is equal parts outside technology, internally developed technology, and open source tools and content.

With no LMS in place, Centric Consulting focuses on acting financially responsibly, using wisdom in decision making, and utilizing open source content whenever possible. Centric Consulting finds the gaps where content is lacking and makes decisions about how to fill those, whether by building internally or purchasing from the market.

Centric Consulting strives to utilize its existing technologies fully and carefully considers buying new technologies that integrate well with them.
Image 7: Centric Consulting’s learning tech ecosystem

Source: RedThread Research, 2019
**Structure: building order out of chaos**

With so many technological functionalities, the tremendous number of choice when it comes to technology, and myriad ways to combine them, learning leaders are often faced with the challenge of building order out of chaos. One vendor put it beautifully when he said,

> “I’m trying to create a signal through the noise, making it as easy as possible for people to learn.”

In looking at over 30 learning tech ecosystems, we saw all kinds of solutions, but as far as structure was concerned, most fell on a spectrum between organizations that use only one platform, and organizations that have a completely open ecosystem:

**Image 8: Spectrum of learning tech ecosystem structures**

- **One Platform**
  - One door, one room: All learning is (theoretically) located in one place.
- **Central System**
  - One door, several rooms. Central tool acting as front door - other tools integrated and accessed thru central tool.
- **Pure Ecosystem**
  - Multiple doors, multiple rooms. Employees access what they want, how they want.

**Characteristics**
- **One Platform**
  - Similar workforce
  - Low tolerance for risk
  - Org driven development
  - Heavy focus on compliance
  - Low budget flexibility
- **Central System**
  - Varied workforce
  - High tolerance for risk
  - Employee-driven development
  - Heavy focus on exploration
  - High budget flexibility

Source: RedThread Research, 2019
In explaining the spectrum, we have adopted a commonly used phrase from our vendor friends: “Front door for learning.”

**One Platform: one door, one room**

Organizations at the left end of the spectrum heavily utilize one platform. Interestingly, we talked to exactly no one who used just one system for employee development. Even when leaders started the conversation by telling us they didn’t have much to say because they only use [insert tech platform here], when we started walking them through the framework, all kinds of technologies came out of the woodwork.

That said, there is a group of companies that gravitate toward a one-platform solution, and in many cases, that works well for them.

This structure can be described as one door, one room. Everything exists in one place, and there is one way to access that place. Organizations that leverage this type of structure tended to have the following characteristics:

- **Similar workforce** – most of their workers had similar needs, similar abilities to access technology, similar growth patterns and career patterns.
- **Low tolerance for risk** – these L&D functions often do not feel empowered to experiment or take risks, opting instead for tried-and-true – if vanilla solutions.
- **Org-driven development** – curricula, skills, paths, etc. are cleanly laid out and do not change much (e.g., salespeople in retail organizations).
- **Compliance-focused** – heavy need to document training for compliance reasons to meet industry requirements.
- **Low budget flexibility** – L&D function gets (for example) $10M every 10 years to update the LMS or record-keeping system, but neither cadence, amount, nor sources for learning budgets are flexible.
GETTING IT DONE

National Auto Parts Retailer: Utilizing internal systems to build a seamless experience

- **Company size:** Enterprise
- **Industry:** Retail
- **Overall goals:** To provide a seamless experience to all employees.
- **Challenges:** Deskless employees and those in the field that need on-the-job access to learning experience.

“We want to see what best applies to us and pick what we need.”
– Learning & Development, Project Supervisor

As a large-scale retailer in the automotive industry with a significant portion of workforce that is deskless and works in retail, the company’s primary goal has been to design an ecosystem that provides an equitable learning experience that is fun and fast and which allows their employees to access and search for knowledge easily.

Since a large portion of their workforce is deskless, one of the main challenges for the company has been to find the right vendors to provide solutions that work for those employees who do not have mobile phones, tablets, or laptops.

Additionally, as their industry often requires specialized and customized learning content that meets specific industry needs, generic content provided by most vendors doesn’t always fit the bill. They also struggle getting the older workforce to adopt some of the new technologies.

Because of these challenges, the company has relied on internally-built tools and in-place legacy systems. Their approach to the technology market has been cautious as they look for vendors who can work as partners and offer flexibility and adaptability.
Image 9: A national auto parts retailer’s learning tech ecosystem
Central System: one door, many rooms

The most common configuration we saw in our research was that of a central system with other technologies integrated into it. The central hub in most cases was an LMS, LXP, or, in some rare cases, a MOOC or Cohort platform while smaller point solutions provided additional functionality.

We describe this type of system as one door, many rooms. While there are several technologies playing a part, they are all accessed through the central system so that employees know where to “go” to learn. Most of the learning leaders we spoke with who are intentionally creating a learning tech ecosystem fell somewhere between a central system and a pure ecosystem.

GETTING IT DONE

A multinational consumer goods company: Bringing it all through the front door

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<tr>
<td>Overall goals:</td>
<td>Challenges: Bringing about a</td>
</tr>
<tr>
<td>To democratize learning</td>
<td>change in culture and mindset</td>
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Not everything works right the first time; there is a need to make the mindset shift of “having it now” to “having it perfect”. – Global Learning Team, Learning Director

A large-scale international company is looking to move from a “push” system, where employees wait to be told what to learn, to one where the culture itself encourages employees to own their professional development.

Their approach to creating this culture is to democratize their learning. The company’s focus has been to provide one point of entry for their employees and allow them to access all learning in the easiest way possible.
This is because, in the past, the unavailability and inaccessibility to learning content and opportunities has been a major challenge for several employee groups. Democratizing their learning content and making opportunities available to everyone across the organizations in an equal and fair manner was essential to changing the culture.

To that end, the company’s global learning team has designed an ecosystem that has a single front door through which employees can easily access different learning content whenever they need to. The company integrated their HR and talent systems with their LXP which has been created a single point of access for all learning. They’re now focusing on integrating functions such as performance, feedback, and mentoring as well.

However, this approach has come with its own challenges, one of which is deep integration of technologies. To do this, the company chooses to work with vendors that “play nice with each other” and are willing to be flexible.
Image 10: A multinational consumer goods company’s learning tech ecosystem
Pure Ecosystem: many doors, many rooms

Organizations at the right end of the spectrum use many technologies to solve many problems and don’t subscribe to the “one place for learning” mantra. Their main philosophy is that people learn where they learn, and it is up to the L&D function to enable it wherever it happens. We describe this type of system as many doors, many rooms.

While the philosophy is becoming more common, in practice, it is still fairly rare. AI, machine learning, big data, and integrations are making this easier, but we still see this as aspirational. That said, those organizations who are at least thinking along these lines share some characteristics:

- **Varied workforce** – necessity to meet the needs of many different kinds of workers, often in many different places in the world, and with many different tech capabilities.
- **High tolerance for risk** – L&D functions moving in this direction were by and large open to a higher level of risk and willing to experiment more broadly.
- **Employee-driven development** – employees are largely in charge of their own development, finding what they need, when they need it.
- **Heavy focus on exploration** – these organizations have fewer must-dos and more opportunities for exploration and growth in directions favored by employees.
- **High budget flexibility** – L&D functions had the ability to restructure their budgets to accommodate more experimentation, smaller, more frequent purchases, etc.

Regardless of which structure currently fits your organization, learning tech ecosystems shouldn’t remain static and fixed on the spectrum. As an organization’s environment, needs, and priorities change over time, so will its approach to its ecosystem and technology structure. Which brings us to our next section.
Sustainability: It takes a village

Sustainability wasn’t on our radar as we started this research study, but resonated strongly with most of the leaders with whom we spoke. The most perfect ecosystem in the world does little good if isn’t sustainable. Sustainability has two flavors: internal and external.

**Internal Sustainability**

Leaders expressed concern (and sometimes dismay) with technology and ecosystems that just didn’t get used internally. While there may be several reasons for this, we learned that the majority of internal failures have to do with lack of buy-in from key stakeholders. L&D functions should be aware of these key stakeholders and the associated challenges.

**Image 11: Internal sustainability challenges**

<table>
<thead>
<tr>
<th>STAKEHOLDER</th>
<th>CHALLENGE ORGANIZATIONS</th>
<th>CONSIDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td><strong>Lack of Adoption:</strong> Technology doesn’t always resonate with employees. This often happens when the experience is poor or there is wide adoption of a replacement solution instead.</td>
<td>Include employee point of view when considering new tech. Pay attention to usage data to see what’s being used and what isn’t.</td>
</tr>
<tr>
<td>IT Function</td>
<td><strong>Lack of ongoing support:</strong> Technology will often die without ongoing support from IT.</td>
<td>Build relationships with IT! L&amp;D functions should ensure that IT understands their vision and business case for technologies.</td>
</tr>
<tr>
<td>Embedded L&amp;D</td>
<td><strong>Lack of use and integration:</strong> In organizations where L&amp;D reports up through businesses, their needs may not be met by technology procured by central L&amp;D functions.</td>
<td>Understand the needs of all employees. Identify limitations (languages, bandwidth) and work around them. Include Embedded L&amp;D groups in larger ecosystem decisions. Also, understand what they’re using instead.</td>
</tr>
<tr>
<td>Senior Leadership</td>
<td><strong>Lack of support:</strong> No matter how good a technology or ecosystem is, without senior leadership support, they are often doomed.</td>
<td>Be able to tell the story about what L&amp;D does, how it’s enabled by the tech ecosystem, and how it affects the organization. Use data and use cases.</td>
</tr>
</tbody>
</table>

Learning tech ecosystems don’t exist in a bubble; they need constant usage and care and feeding to be successful. Understanding and involving the main stakeholders is key to success.

**GETTING IT DONE**

**Shopify: Making a Sandwich**

<table>
<thead>
<tr>
<th><strong>Company size:</strong> Mid-market</th>
<th><strong>Industry:</strong> Consumer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall goals:</strong> To be able support and provide quickly for their employees learning needs as they grow.</td>
<td><strong>Challenges:</strong> Moving fast while ensuring that the learning system is built with intent.</td>
</tr>
</tbody>
</table>

“Talking to different companies to understand their experience with a vendor and how they were using it to inform their decisions has been really helpful.” – Andrew Barrett, Learning Platform Lead

Shopify describes their ecosystem as a sandwich, with the user facing surface system as the top layer and the data infrastructure as the bottom layer. The stuffing in the middle is made of other smaller technologies that can be added or deleted depending on the needs of the organization as a whole as well as different functions in the organization (e.g., their LMS is one of those systems that is used heavily in some parts of the organization but not in others.)

One of the ways Shopify keeps control of the technology and ensures leadership support is through a soft government structure. Bringing together the head of different learning teams to discuss their needs and outline their learning initiatives allows the company to build alignment, leverage the ecosystem more broadly, and create impactful and scalable development experiences quickly.

Shopify’s approach to designing a sustainable ecosystem is complemented by their constant scrutiny of technology procured and working with the leadership to decommission things that are not working well. This, along with talking to different companies to understand their experiences with different vendors, has helped Shopify identify appropriate vendors and technology.
Image 12: Shopify’s learning tech ecosystem
External Sustainability

Leaders also expressed concern with the market consolidation happening in the learning technology space. Because of the massive number of players, a seemingly endless supply of venture capital money, and the need of “the big guys” to stay relevant, it is sometimes difficult to understand which vendors will be around next month, let alone next year.

Leaders mentioned 5 things they look for when determining how sustainable particular vendors:

1. **Similar Challenges.** Vendors can refer to clients who have solved similar challenges using their technology.

2. **Confidence of investors.** While not always completely accurate, several leaders told us that they used the market to help them vet vendors. Understanding where startups were in the funding process gave them hints as to the long-term viability of those vendors.

3. **Robust & innovative roadmap.** Vendors should be able to speak confidently to their roadmap, and learning leaders should ask for it. Understanding the roadmap helps learning leaders to understand if the technology is moving in parallel with their organizational needs and to assess the vendor’s innovation and ability to respond to the market.

4. **Longevity in the market.** Leaders we spoke to were wary of very young vendors, worrying about their long-term viability. That said, some of the more forward-thinking leaders were also wary of vendors who have been in the market too long – worrying about their ability to react and be innovative.

5. **Evidence of partnering.** Many leaders also mentioned using vendors as an extension of their team and a way to push forward and adopt new ideas. They look for evidence of partnering and problem-solving, not just providing software or content.

As organizations continue to adopt an ecosystem point of view, it is getting more important to not just vet the tech, but also vet the vendors. Learning leaders should look for those who go beyond just providing services and can actively (not passively) help to solve problems.
Embrace the uncertainty: evolve continually

Natural ecosystems are designed to change and evolve based on the environment they find themselves in. Learning tech ecosystems should be no different. As organizations react to changes in their industry or market, L&D functions should also adapt, sunsetting technologies that aren’t working, looking for ones that serve new purposes, and understanding how employees can build the skills to help their organizations compete.

Leaders we spoke to emphasized the importance of constantly evaluating what is working and what isn’t working, and making changes accordingly. They had three major pieces of advice.

Understand your usage

About two thirds of the vendors we have spoken to in the last year indicate that they have some sort of analytics capabilities (and we strongly encourage the other third to develop some). In this day and age, data is power. Understanding what is being used and what is not being used helps L&D functions make much sounder decisions.

For example, one learning leader worried about the expense of unused technology licenses looked at usage data and then put into place a process for notifying users with little or no activity. She then revoked licenses where they weren’t being leveraged so that they could be redeployed elsewhere.

Divest to invest

Divest to invest. We actually borrowed this particular phrase from Barry Murphy at Airbnb. Once L&D functions understand how technologies are being used (or not), decisions about what to get rid of gets much easier.
Organizations should regularly purge technologies that are only taking up space and brainpower and reinvest the money saved into technologies that can move the organization forward.

Obviously, this is easier with point solutions. It gets trickier for central systems, heavily integrated systems, or systems for which there are 10-year contracts. As L&D functions begin to think more in terms of ecosystems and less in terms of a single platform, they also may want to revisit their budgeting and contracting practices.

**Be decisive**

Finally, be decisive. Leaders mentioned the danger of indecisiveness. L&D functions can spend months and months vetting vendors and planning strategies, but most of the forward-thinking leaders mentioned that they grow and evolve their ecosystems over time rather than building them all at once.

They start with a general plan, an understanding of what is needed, and an idea of how to go about it, and then implement over time, understanding how things are changing, what is working, and what is not working.

Indecision kills the vision. Something is almost always better than nothing, and leaders should understand that a tech decision isn’t forever. Things can change.

**GETTING IT DONE**

*Airbnb: Wiping the slate clean and building anew*

<table>
<thead>
<tr>
<th><strong>Company size:</strong></th>
<th>Mid-market</th>
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</thead>
<tbody>
<tr>
<td><strong>Industry:</strong></td>
<td>Hospitality / Food Service</td>
</tr>
<tr>
<td><strong>Overall goals:</strong></td>
<td>Building scalable solutions.</td>
</tr>
<tr>
<td><strong>Challenges:</strong></td>
<td>Keeping up with the constantly transforming market.</td>
</tr>
</tbody>
</table>

“Everyone, from the CEO to the New Hire has a potential to be a stakeholder in the designing process” – Barry Murphy, Global Learning Lead
Working towards building their 2024 vision for learning, Airbnb sets its learning priorities every 6 months based on the priorities and strategy of the organization. One of the main focuses for their global learning team is to be able to scale as quickly as the organization scales through significant investments.

For a disruptive company that is growing at an extremely fast rate, aligning business needs with learning can be challenging. In order to achieve this, they need to formalize a common language around skills within the organization and balance acquiring and hiring skills with building it internally. They also need greater partnership with other business functions to be able to help the company grow by supporting its goals.

Finally, navigating the external learning technology market has also been a big challenge. With the recent explosion of new technologies and increasing consolidation in the market, it is a challenge finding vendors who can be design partners in their ecosystem journey.

Airbnb’s approach to designing their ecosystem is to focus on delivering their vision – understanding the functionalities and technologies they need, being aware of the market and what’s out there, and then experimenting as they go.

While they have brought in a central platform that is integrated with a host of other smaller vendors providing additional functionalities, they are also aware that they need to be a bit more platform-agnostic in order to be able to meet their employees’ needs.
Image 13: Airbnb’s learning tech ecosystem

Source: RedThread Research, 2019
Conclusion

We started this paper with a discussion of why learning tech ecosystems are crucial to the future of employee development. We want to reiterate that here: given the speed at which business is evolving, and the expectations leaders now have of L&D, it is imperative that organizations have a thoughtful, evolving learning tech ecosystem. Three final points.

First, philosophy and strategy are key. As the learning technology space continues to get more chaotic, choices multiply. Philosophy and strategy keep organizations grounded and focused on their goals and on employee needs, and away from the new and shiny. We hope the framework we provided will help.

Second, thoughtful partnerships make learning tech ecosystems work. Internal stakeholders and strong vendor relationships can provide insights that will help L&D functions make the most of their technology and ensure that their ecosystems are sustainable in the long run.

Finally, evolution is necessary. Learning tech ecosystems are not a one and done activity. They need constant monitoring updating to meet the needs of the organization and of the employees.

We began this research with the hope of finding insights into how organizations and learning leaders are thinking about ecosystems and were pleasantly surprised by the number of them who agreed to speak with us and share their journey. To them we are extremely grateful.

We are also extremely grateful to our sponsors, Axonify, Degreed, and NovoEd who supported our research and helped see it through to the end. We hope that through this research we have been able to help you think through some of your own challenges that your organization might be facing and nudged you towards finding your own path to designing a successful ecosystem.
About RedThread & Authors

Sure, we’re experts in performance, people analytics, learning, and D&I – and we’re well-versed in the technologies that support them. But we’re also truth-seekers and storytellers in an industry often short on substance, and too full of @#$%. Our mission (indeed, our very reason for existing) is to cut through the noise and amplify what’s good. We look for the connections (or red threads) between people, data, and ideas – even among seemingly unrelated concepts. The result is high-quality, unbiased, transformative foresight that helps you build a stronger business.

Dani Johnson, Co-founder & Principal Analyst

Dani is Co-founder and Principal Analyst for RedThread Research. She has spent the majority of her career writing about, conducting research in, and consulting on human capital practices and technology. Before starting RedThread, Dani led the Learning and Career research practice at Bersin, Deloitte. Her ideas can be found in publications such as Wall Street Journal, CLO Magazine, HR Magazine, and Employment Relations. Dani holds a Master of Business Administration and a Master of Science and Bachelor of Science degrees in Mechanical Engineering from Brigham Young University.

Priyanka Mehrotra, Research Lead

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