Powering the Modern Learner Experience

Next-Generation Learning Tools Come of Age
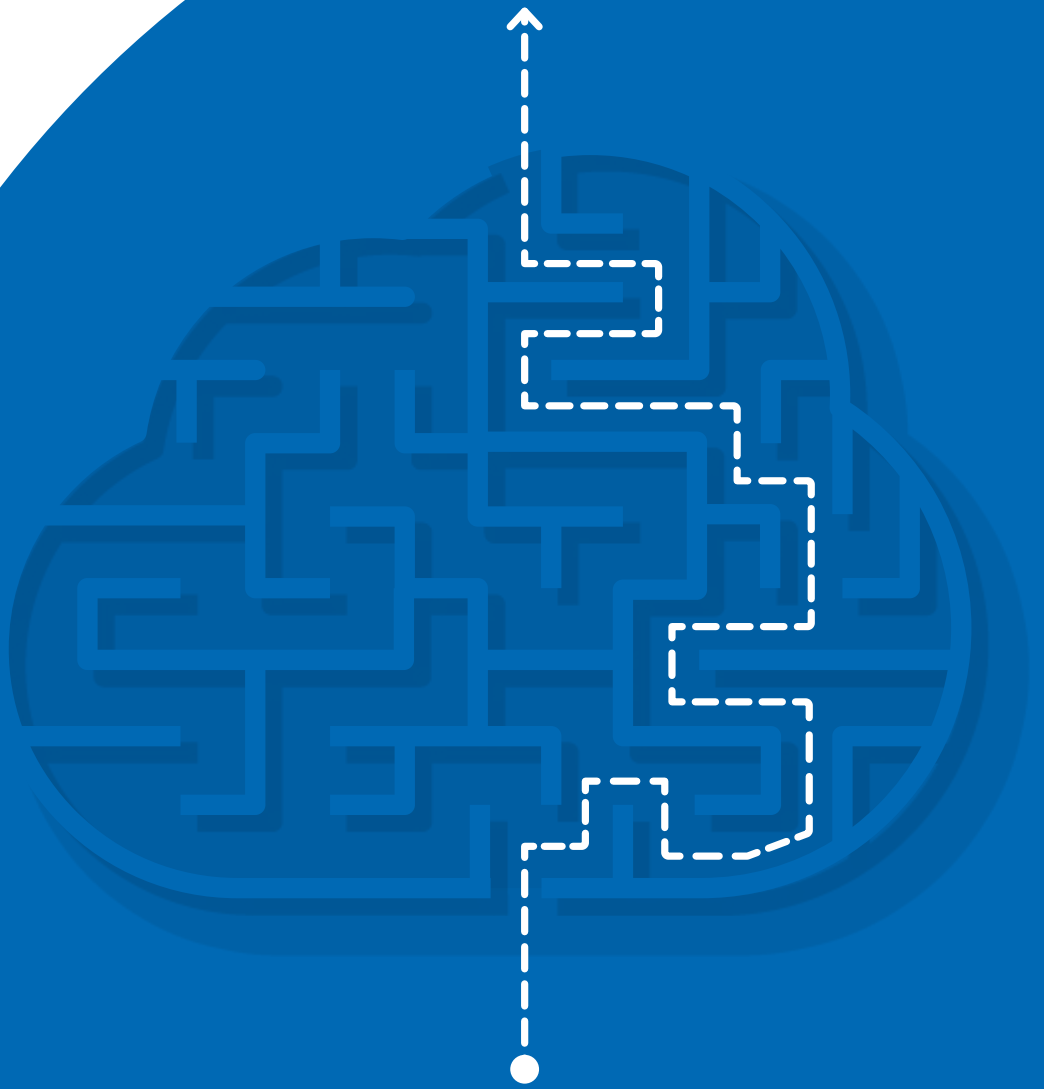
Contents

Why this paper now?

The Learning Experience Platform (LXP) and the Learning Record Store (LRS) have been touted by many analysts as the key technologies that will dominate the learning tech stack for years to come. Now they have cleared the first stages of development and are gaining widespread adoption.

This paper brings together original research into the current state of the LXP/LRS market with other strands of research and opinion to provide for the first time a comprehensive view of these exciting developments and how they are shaping the future of learning.

3 Foreword

Learning Experience Platforms are hot. My 2019 L&D Global Sentiment Survey ranks them sixth of 15 options among worldwide trends in our field, with the most influential core of respondents ranking them second. This is impressively high for the first year on the survey and makes LXPs a certainty to move higher in the rankings next year as interest spreads across the profession.

But hot topics are seldom well defined or dispassionately discussed. Having chaired the Learning Technologies conference since 2000, I have observed two decades of initially well-formed ideas in our field becoming surrounded with vacuous, ill-formed speculation. This paper provides an excellently curated and very welcome review of the key literature on LXPs.

Ben portrays LXPs as an evolution, rather than a sudden revolution, in learning technologies, using the analogy of dogs evolving from wolves. And just as wolves and dogs are separated only by handful of genes, for me the use of SCORM or xAPI is a key differentiator between the LMS and the LXP. SCORM enables the efficient packaging and delivery of learning content. xAPI, in contrast, enables data on learning experiences to be tracked. That difference is fundamental not just to functionality but to philosophy. An LXP puts the individual and their learning experience at the center of its focus. Other systems start with content as the presumed answer to learning and performance needs.

With this emphasis, the LXP epitomizes how the role of L&D is changing—from a supply-side approach of finding uses to content to the demand side, where L&D supports performance and capability. But this in turn raises a question beyond the scope of this report: Is the profession ready? It is quite possible that LXPs will provide the functionality to support a huge range of learning experiences at work which will go unused by a profession sticking rigidly to its old ways. If we do this, we will be failing our profession, ourselves, and those we should be supporting in their quest for engaging, high-impact learning.

Donald H. Taylor
Chair, Learning and Performance Institute

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Executive Summary

Background

The learning management system (LMS) was a product of the late 20th century. But, almost as soon as it began to achieve mainstream use, it began evolving new features and capabilities to meet the changing needs of organizations, as they were driven by macro changes in:

- Working patterns

- Employee circumstances and expectations

- Technological capabilities and affordances

- The theoretical underpinnings of workplace learning

However, at a certain point the classical model of the LMS began to creak under the pressure of so much rapid technological and social change. The learning experience platform (LXP) emerged as a new and distinct style of learning system.

The two systems are now identifiably different entities, the main difference between them being that, while an LMS is designed principally to meet the needs of administrators, the design of an LXP focuses first and foremost on needs of the user.

These needs include, in the first instance, better discovery of content, reduced friction in content access, support for self-direction, and a more personalized, social learning environment.

LXP or LMS?

With the LMS firmly entrenched in the working processes of most learning departments and unlikely to disappear from the scene any time soon, buyers of learning systems now face a choice between two very different types of platform. Or do they? Because, while some people will find that one or other of the two systems meets their needs, possibly a much larger number will find they get value from having both.

Some will choose to deploy different systems for different segments of the workforce, based on factors such as region, differences of employment status, or how learning is to be tracked and evaluated.

Others again will use LMS and LXP in tandem; each playing to its characteristic strengths in what Josh Bersin describes as an integrated corporate learning technology stack **https://joshbersin.com/2019/06/learning-technology-evolves-integrated-platforms-are-arriving**.[1]

Typical features of an LXP

1. Consumer-grade interface and experience

2. Advanced search

3. Personalization

4. Mobile friendly

5. Any content

6. Curation

7. Social features including user-generated content

8. Skills framework

9. Badging, assessment, certification

10. Advanced analytics

LXP and LRS

xAPI has made possible the granular tracking of learning resources and experiences external to the LMS, bringing into being the learning record store (LRS), a further addition to the learning technology stack. An LRS separates out the tracking function, making possible a deeper integration of learning data with other business data and systems. This means that the impact and value of organizational learning can be assessed more quickly, easily, and accurately, offering L&D teams the chance to constantly measure and improve their learning estate and deliver real business value.

The growth of the LRS has paralleled the emergence of the LXP, and in many ways the two are natural partners.

Learning professionals who wish to enter a new world of enhanced near- and real-time analytics and evidence-based decision-making may well feel that the ability to talk to the LRS is a core piece of functionality for a modern LXP.

The market for LXP and LRS

Learning Pool commissioned original, exclusive research from CIL Management Consultants into the markets for LXP and LRS. This shows that both have already achieved significant penetration in the learning-systems market in the USA and UK and are poised to become mainstream in the next few years.

Headline results:

• LXP is a potential billion-dollar market

• More than 50% of companies likely to buy an LXP say they will do so in the next 24 months

• One in four US companies suggest they already have an LXP in some form or another

• LRS is also a potential billion-dollar market, but a significant share of this will go to packaged products (i.e. LMS + LRS or LXP + LRS)

• One in five US companies suggest they already have an LRS in some form or another

Section 1: What Is an LXP … and Why Would You Need One?

Evolution not revolution

The learning experience platform (LXP) evolved out of the learning management system (LMS). This might seem an obvious point, but it is an important one to make at the outset, because it explains some of the difficulties people have had in recent years in giving a clear definition of this new product category.

Not all products evolve out of something else. The technology we are using to write this paper—word-processing software running on a computer linked to a printer—did not come about through incremental improvements to the typewriter, it was a completely different way of approaching the task, resulting from the introduction of a new paradigm; personal computing. This was a **revolutionary** change, not an **evolutionary** one.

The LXP, by contrast, evolved out of the LMS in a process perhaps analogous to the way domestic dogs evolved from wolves.[2] At two different points along the evolutionary timeline we can see two distinct species, wolf and dog, but at points in between there were no doubt many varieties of wolf-like dogs and dog-like wolves, with interbreeding further confusing the picture and making it hard to draw a clear line between the two. So it has been with LXPs and LMSs—however, this is beginning to change.

In understanding the distinction we are seeking to make, it is useful to set it in the context of the different types of innovation as defined by Greg Satell in the *Harvard Business Review.*[3]

Satell's matrix draws on the work of Harvard Business School professor Clayton Christensen, who introduced the concept

of disruptive innovation in his book *The Innovator's Dilemma.*[4] Disruptive innovations are very different from sustaining innovations; the box in Figure 1 where most organizational innovation happens, which could be described as evolutionary change. In the example given above, word-processing with a personal computer would count as a disruptive innovation. It is a revolutionary paradigm shift that changed the landscape of competition and consigned the typewriter to the status of museum piece.

This raises the question of whether LXP is a disruptive innovation, set to cast the LMS onto the trash heap of obsolete technology systems or a sustaining innovation that will complement it, and by doing so actually prolong its life. Ultimately only time will tell. But the very entangled nature of the LXP and LMS concepts to date tend to suggest that LXP is probably a sustaining innovation.

The contention of this paper is that the LXP and the LMS can now just about be described as separate entities, each with its own distinctive characteristics and capabilities. However, this wasn't necessarily the case a few years ago.

In the two decades of their existence, as Laura Lee-Gibbs, of Learn Fox, points out,[5] LMSs had begun to add many of the features we now think of as associated with the more recent LXP concept, such as "user-generated content, social learning, the ability to design and route learners through learning pathways, e-commerce, mobile learning and more recently gamification."
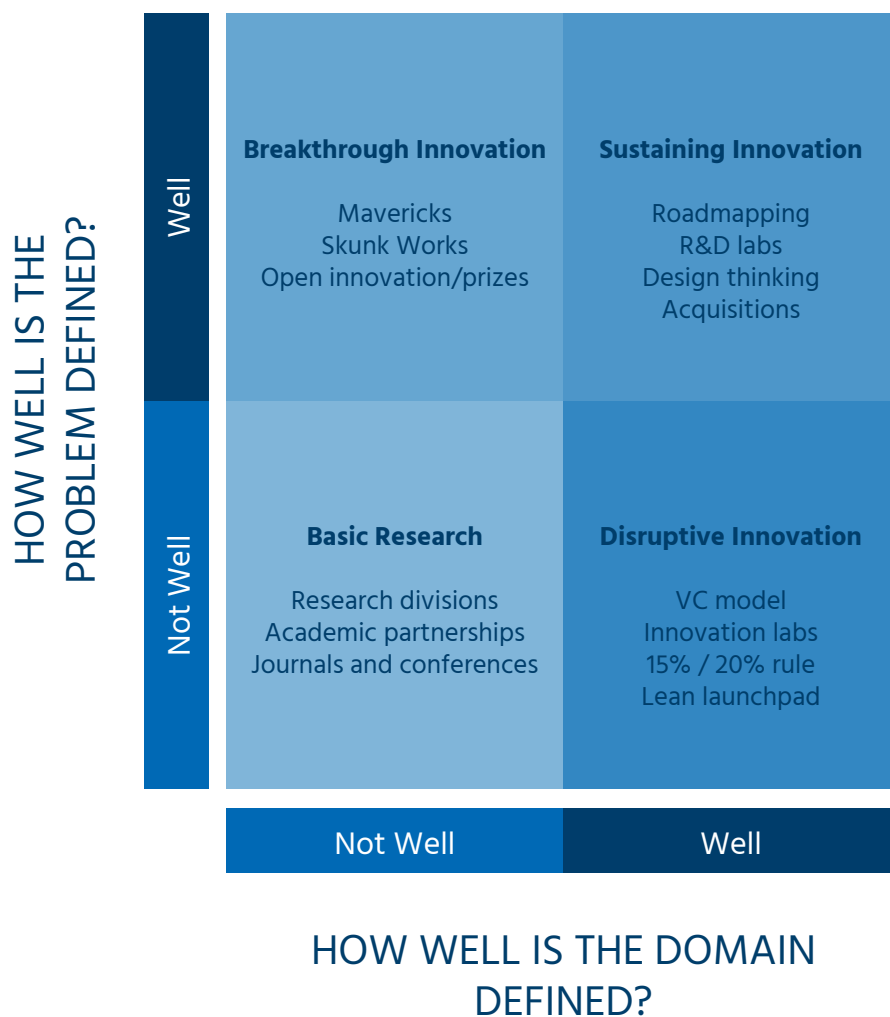
4 Types of Innovation

HOW WELL IS THE PROBLEM DEFINED?

	Not Well	Well
Well	**Breakthrough Innovation** Mavericks Skunk Works Open innovation/prizes	**Sustaining Innovation** Roadmapping R&D labs Design thinking Acquisitions
Not Well	**Basic Research** Research divisions Academic partnerships Journals and conferences	**Disruptive Innovation** VC model Innovation labs 15% / 20% rule Lean launchpad

HOW WELL IS THE DOMAIN DEFINED?

Figure 1. Source: Greg Satell ©hbr.org

At the same time, those systems that were beginning to be described as LXPs had diverse and overlapping feature-sets, and there was not much of a settled view within the learning technologies community about what the defining features of an LXP might be.

Latterly, however, LXP feature-sets have tended to coalesce somewhat, in the process of which what has become most notable about them is not so much what they do as what they don't do—to the extent that it is almost easier to describe the difference between an LXP and an LMS in terms of absences. The LXP, by and large, believes certain features are no longer valid or required, and streamlines its feature-set in the cause of a better user experience, cutting out the "features-bloat" that has come to be associated with the LMS.

Having said all this, there are still many hybrid systems around, and it is not always easy with a given system to decide whether it is truly an LXP or an LMS. Nevertheless, the fog has cleared somewhat, and it is now possible to form a clearer definition of each, their distinctive characteristics and strengths, and how each might best be deployed within the organizational context to support the learning needs of a modern workforce.

But, before we undertake that "compare-and-contrast" exercise, it is worth talking a little more about the process of evolution by which the LXP emerged and the forces in the business environment that drove it.

The evolution of the LXP

Probably no one has done more to document and give a shape to this new product category than Josh Bersin, the person who coined the term "Learning Experience Platform."

"Several years ago, as I saw the rapid growth of platforms like Degreed, EdCast, and Pathgather, I coined the phrase "Learning Experience Platforms," and the name really stuck. Today this product category is quite real and rapidly expanding."(**https://joshbersin.com/2018/09/ the-learning-experience-platform-lxp-market-expands/**)[6]

The three vendor companies Josh Bersin cites as LXP pioneers were all founded or came to market between 2012 and 2013, which gives a rough founding date for the product category, although it should be noted that some of the companies later added to that category have earlier founding dates (e.g. Fuse, 2008).

We might imagine the LXP concept to be a very new one, whose age is counted in months, not years. But the LXP pioneers are generally between seven and eight years old and others have been around a decade or more.

By 2017, learning management systems had begun to add features that would later be seen as typical of LXPs, a development which has been attributed, philosophically speaking, to the influence of the 70:20:10 observation.
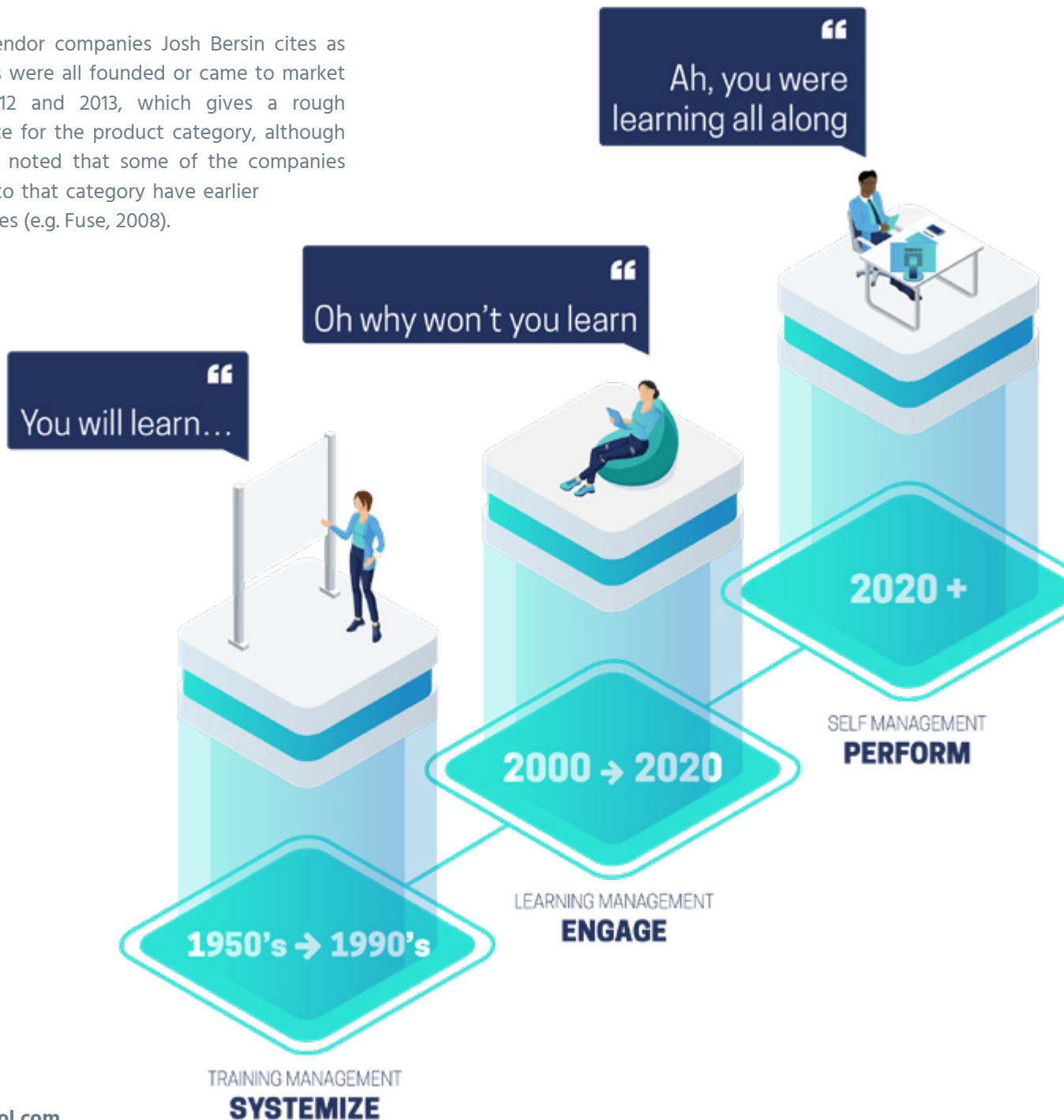
In the same year, a slide from one of Josh Bersin's decks began to circulate widely in the world of learning technologies and became influential in establishing LXPs as a category distinct from LMSs (see Figure 3).

Over the next couple of years Josh Bersin tracked the LXP market as it "exploded, expanded, grew up and evolved." (**https://joshbersin.com/2019/06/learning-technology-evolves-integrated-platforms-are-arriving/**).[7]

This latest development, the growth of integrated platforms, marks a significant change of focus for the LXP. Having become a more or less fixed, identifiable entity with a commonly accepted feature set, the LXP can now take its part within the new, reconstituted "stack" which includes the LMS but also a number of other products (or modules of a suite perhaps) to constitute a "modern integrated corporate learning platform." (**https://joshbersin.com/2019/06/learning-technology-evolves-integrated-platforms-are-arriving/**).

Although certainly the most prominent analyst tracking the LXP space during this period, Josh Bersin has certainly not been the only one. In January 2017, UK-based analysts Fosway introduced a new category into its 9-Grid analysis of learning systems,[8] Next Generation Learning Environments (NGLE), to acknowledge that a new type of system distinct from the LMS was being seen in the market.

In November of the same year, Craig Weiss published a blog post proposing the term "learning *engagement* platform" and saying that the LXP/LEP was a stronger product than the LMS in "an inevitably expanding niche."[9]

Gartner's Market Guide for Corporate Learning Suites, published 15 May 2018, recognized "learning experience platforms" (LEPs) as a separate vendor category from LMS. In the same year, Gartner analyst Jeff Freyermuth placed "learning productivity (experience) platforms" at the "innovation trigger" point on the beginning of its hype curve for Human Capital Management Technology, indicating that it is expected to reach mainstream adoption in the next five to 10 years.[10]

The Learning Tech Market Is *Starting* to Shake Out

Learning Experience Platforms

Degreed, EdCast, PathGather, SAP Jam, Fuze …

Program Experience (Delivery) Platforms

Intrepid, NovoEd, EdX, Everwise, OpenEdX

Micro-learning Platforms

Axonify, Grovo, Qstream, Practice, Rehearsal, others …

Assessment, Development, Delivery Tools

Video authoring, intelligent assessment, spaced learning, gaming, virtual reality, collaboration, simulations …

Content Libraries

Lynda, Udacity, Coursera, EdX, Udemy, Pluralsight, SkillSoft, CrossKnowledge, hundreds of others …

LMS Platforms

Traditional: Cornerstone, Saba, SuccessFactors, SumTotal
Modernized: Workday, Oracle Cloud Learning, Litmos, Docebo, others …

Learning Record Store

GrassBlade, Learning Locker, Saltbox, Watershed

Figure 3: Adapted from Josh Bersin, **https://joshbersin.com/2019/06/learning-technology-evolves-integrated-platforms-are-arriving/**

The 2018–19 edition of Sierra Cedar's long-running HR Systems Survey includes LXPs, describing them as "an emerging trend in the Talent Management application space."[11]

Writing in June 2018, Michael Rochelle, Chief Strategy Officer and Principal HCM Analyst, Brandon Hall Group, hailed the coming together of Degreed and Pathgather as "groundbreaking" in the industry: "This is just the beginning of a movement that has been set in permanent motion to transform how organizations look at learning and improving individual and organizational performance."[12]

Despite some divergent opinions about naming, it can now confidently be asserted that the LXP is a significant new product category in learning platforms, a separate (although related) species from the LMS, and a strong indicator of a forward path for development of learning technologies. (Later in this paper we will show that it is also achieving significant market traction.)

This state of affairs makes it possible for us to look at the business drivers that have produced this new entity and describe its key features, which we will now do.

In Josh Bersin's work we can see a number of drivers for the emergence, and subsequent enthusiastic adoption by buyers, of LXPs. His commentary on the rise of the LXP ties into other work on changes in the behavior and expectations of learners (notably his writings on the "modern learner"[13]), as well as the needs of L&D and HR professionals.

In order to fully understand what has led to the emergence of the LXP, however, it is also necessary to look more broadly at macro changes in the business environment that have helped to make LXP not only a valid need of organizations (i.e. not a "solution looking for a problem") but, in some senses, an inevitability.

What has driven the growth in learning experience platforms?

Drivers of LXP

WORK	• On-demand economy • Contingent and extended workforces • Flexible working • Accelerating product cycles • Agility: a new organizational paradigm
EMPLOYEES	• Greater workforce flexibility • Shortened tenure expectations • Pressures of the always-on, wired world • Modern learners: "overwhelmed, distracted, impatient" • Generations Millennial and Z becoming the dominant workforce segment
TECHNOLOGY	• Mobility • Explosion of online content • Growth in sophistication of data analytics • AI and automation
THEORY	• ID shibboleths fall from grace • New input from neuroscience and psychology • 70:20:10, JIT, courses not resources, micro, nano, gamified

Changes in working patterns

The LMS was created for organizational structures that were different from the ones we see today. In the two decades during which LMS was the dominant paradigm of learning systems, powerful forces—including globalization, free-market liberalism, the development of the internet, and innovations in consumer electronics—have changed the world of work profoundly, putting pressure on the default capabilities of the classic LMS.

Some of the changes detailed below have raised particular problems for the "traditional" LMS, which was designed assuming full-time, office-based employees accessing the learning system via desktop computers supplied and supported by internal L&D and IT departments.

Growth of freelancing and the "gig" or "on-demand" economy changes the landscape

The number of freelance workers in the economy has risen dramatically since the turn of the millennium. In the USA they are growing three times faster than the traditional workforce. More than a third of US workers are currently freelance (UK: 15%), with the numbers expected to rise to close on 40% by 2020.[14] These freelancers are disproportionately from younger age groups, do it by choice rather than through necessity, and are more proactive in seeking out skills training than full-time workers. If this trend continues (caveat: 2018 showed a small decrease) freelancers are expected to form the majority of US workers by 2027.

Contingent workforces need flexible knowledge resources

Large companies employ an ever-increasing number of these freelance contractors, consultants, temps, and advisers, referred to as the **contingent or extended workforce**. According to Deloitte, "businesses have dramatically increased their use of contingent workers over the past decade as they struggle with rising labor costs and the need for a workforce that can quickly adapt to market conditions."[15] Whole cohorts of contingent workers are now deployed to meet skills gaps and particular strategic goals.

These contingent workers often need to be onboarded, trained in relevant skillsets, and given the knowledge to work in compliance with industry regulations, but trying to do this within the corporate LMS can be a struggle, when the direction of travel in the vendor community has been toward closer integration with large talent management and HR systems. This can mean that enrolling someone on the LMS who is not a full-time employee raises security issues and triggers all sorts of irrelevant processes creating unnecessary friction.

Often these audiences need far simpler "launch-and-learn"-type environments without the need for complex LMS administration. (A good example of this type of deployment was when Learning Pool client the English Football Association used the Learning Pool's LXP for their Wembley Stadium event staff.)

Neither can it be guaranteed that the model of learning content delivery used by a traditional LMS is appropriate to the needs of a contingent workforce. Lacking the knowledge of internal systems and access to information stored across the organization in multiple repositories, databases, and file-shares, such workers need access to the information required to do their jobs via a system that is content driven rather than admin driven. They could be accessing such information on home systems, tablets, and smartphones, many of which will not be part of any BYOD scheme.

Their content needs can also differ. The necessity of deploying contingent workers quickly and flexibly often makes it impossible to develop hefty e-learning programs for their specific needs, so they might have to lean heavily on curated content from external sources, user-generated content, micro-learning, video, etc.

Where contingent workers are used to supply skills gaps in an organization, there is often a requirement for knowledge transfer to full-time staff (and vice versa), driving a requirement for user-generated content, often in the shape of an ability to upload and share user-created video.

In regulated industries, having an audit trail for contingent workers can be business-critical, so, even where content is provided flexibly, its use still needs to be tracked scrupulously and accurately. As we know, SCORM, the underpinning tracking technology of the LMS, struggles with anything that falls outside the classical model of content provision. xAPI provides a more flexible style of tracking for diverse content that sits outside the LMS.

Flexible working

Work has changed for full-time workers, too, many of whom are opting to become rather less full time and/or to work from home. Flexibility is now the most desired non-monetary benefit for US workers: 51% say they would change jobs to have access to it (the ability to work from home comes in at 35%).[16] Only 44% of those questioned say their company actually offers flextime, and 24% offer the ability to work offsite part of the time. Just over half of UK workers are working flexibly in some way, and, of those who don't have access to flextime, 78% would like it.[17]

The unmet demand showed by these figures, against a background of declining unemployment, indicates that these trends are only likely to continue.

Flexible and remote working, however, carry a risk of isolation, which throws more emphasis on the social aspect of learning,[18] something that can be ill-served by an LMS structured around self-paced e-learning modules as the default mode of delivery but which is a settled feature of LXP systems.

Accelerating product cycles

Product development cycle times decreased significantly over the 15 to 20 years to 2010, according to studies by the Product Development and Management Association (PDMA),[19] and, with the key drivers of technological innovation on exponential curves, there is no sign of this trend slowing anytime soon.

The impact of this need for speed, most acute in sectors such as retail, has been felt for some time in the world of digital learning. Putting pressure on lengthy production schedules for custom e-learning content, it has been a significant driver of developments such as rapid authoring and, more recently, micro-learning, curation, and user-generated content. Arguably, it also contributes to fueling a culture of self-directed learning as learners seek to avoid the friction associated with learning departments where access to learning has to be requested and approved.

A new organizational paradigm

Between 1983 and 2013, more than 90% of non-financial S&P companies dropped out of the index. With disruption from younger, tech-enabled competitors affecting all sectors to a greater or lesser degree, there has been a big drive for organizations toward digital transformation, adopting more agile structures and processes.

McKinsey talk of this as a new organizational paradigm (see Figure 4).

The Agile organization is nearly the new dominant organizational paradigm
Rather than organization as machine, the agile organization is a living organism
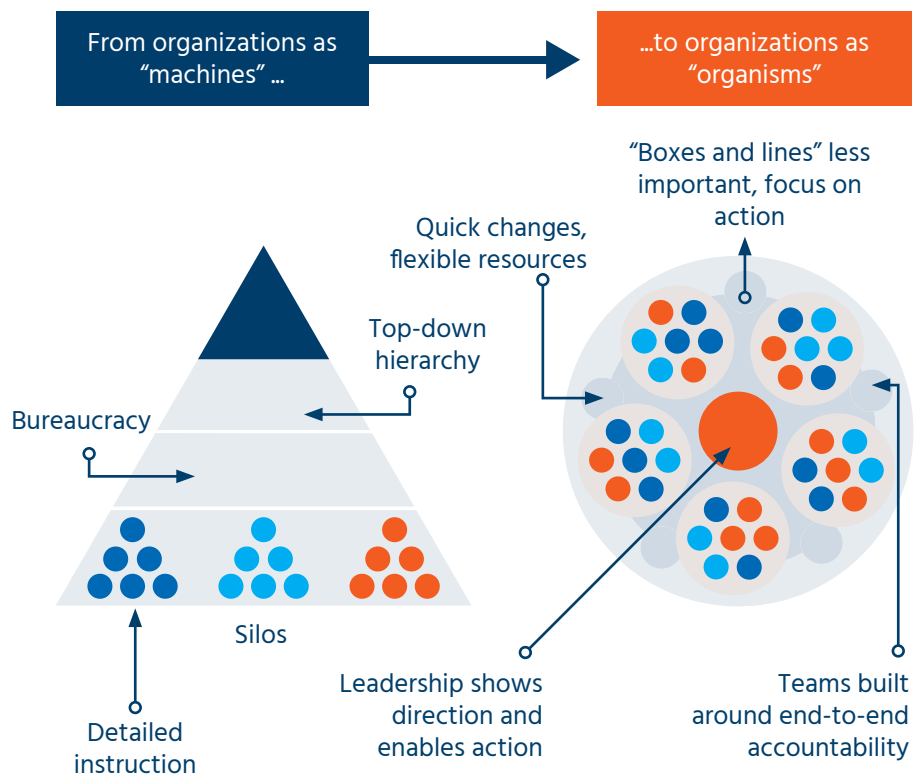

Figure 4. McKinsey & Company

84% of global senior executives interviewed by Forbes in 2017 agreed that "organizational agility" is essential to achieve digital transformation, with almost a third considering themselves "highly agile." Deloitte found that 80% of federal IT projects in the USA were self-described as "agile" or "iterative" in 2017 (2011: <10%).[20]

This new paradigm puts pressure on organizations to reskill more effectively and to support continuous learning to keep up with the pace of technology-driven change.

With its emphasis on collapsing hierarchies and working in flexible, multi-disciplinary teams, agile working also tends to de-emphasize the importance of **job roles** in learning and gives more focus to **tasks** and **skills**. It is probably no coincidence that we have heard less in recent years about L&D approaches such as competency-based learning and much more about skills.

If the architecture of the classical LMS was designed for how organizations were in the 1990s, surely a new organizational paradigm calls for a new learning-systems paradigm.

Changes in employees circumstances and expectations

Changes in the organization have been accompanied, and to some extent caused, by changes in the employer–employee relationship. The dynamics of this relationship have altered radically since the 1980s with the transition from a manufacturing economy to a knowledge economy.[21]

Greater workforce flexibility

Greater flexibility in patterns of working has both positive and negative effects for employees. A more marketized environment for labor means that we see a very broad spectrum of difference in how weighted the balance of power within employer–employee relations appears toward either party. Where workers have highly valued, scarce skillsets that are critical to business success (e.g. data scientist, financial "quant"), employers feel driven to confer benefits and incentives that recall the paternalistic companies of the late 19th and early 20th centuries. At the other end of the spectrum, where workers have low-value, "commoditized" blue-collar skills that are readily available (cleaner, taxi driver), the employer's behavior is increasingly transactional, unengaged, and can be the very opposite of parental.

Shortened tenure expectations

Since the 1980s, expectations around job tenure have shortened for both parties, and, since the global financial crisis, average wage levels have remained flat or declined in real terms at the same time that unemployment levels have fallen. Levels of employee engagement are low,[22] and it is probably fair to say that today's employees feel far less sense of obligation toward their employer than in former times and are more ready to move if the grass looks greener on the other side of the fence.

Pressures of the always-on, wired world

Meanwhile, since the advent of Web 2.0, social media, smart mobile devices, and always-on internet, the pace of life has been cranked up for these employees both at work and at home. A more information-rich environment has produced higher expectations around what we should all be able to accomplish with that information and how quickly, but productivity doesn't actually seem to have increased—perhaps because more information also means more distractions and somehow more friction (since this wealth of "free" information has to be funded by highly interruptive advertising techniques).

"

Modern learners are overwhelmed, distracted, impatient ...

1% of a typical workweek is all that employees have to focus on training and development. Yet people still find the time to unlock their smartphones on average 9 times per hour and we get distracted every 5 minutes (on average) by notifications from collaboration tools.

Source: "Meet the Modern Learner" (2014). Bersin by Deloitte,[23]

Changes in technological capabilities and affordances

As Moore's Law (together with a group of additional eponymous laws, most notable Metcalfe's) propelled technological advance along exponential growth curves, technology became the engine of radical and often unpredictable change in business and society.

Mobility

The advent of the smartphone placed an unprecedented amount of computing power and information in the hands of ordinary people, a development that went hand in hand with the extraordinary growth of social media. Tablets, with their larger screens, made many applications mobile that would previously have been restricted to desktop and brought an expanded range of media to mobile computing.

As cloud computing increased, and more and more applications became portable between the user's different devices, an expectation arose that work-based applications such as the company LMS should behave this way, too. Learning platforms inevitably went in this direction, but there was a noticeable lag.

Explosion of online content

The success of community/blogging platforms like WordPress and Drupal, both gaining substantial third-party development communities as they grew, had the effect of driving down costs for and, in a sense, commoditizing content management. Social media platforms such as Facebook, Linkedin and especially YouTube normalized the phenomenon of user-generated content that had started with blogs and forums.

Now that almost everybody participating in internet use was a publisher, and with mainstream media, once known as "the fourth estate" no longer the gatekeeper of news, the idea that the Learning Department should be the exclusive gatekeeper of learning content within an organization began to seem anachronistic.

Meanwhile the variety and "production value" of online content had increased hugely. Where the internet of the late 1990s was largely text-based and struggled with images, much less video, we now had real-time streaming of movies and a rich mix of content types with greater interactivity, much more audio, and innovative forms like virtual and augmented reality.

There was an explosion of online content, available through free, freemium, paid-for, and subscription models.

Growth in sophistication of data analytics

Sophisticated analytics fueling a new type of advertising targeted with unprecedented accuracy became the currency of the digital economy. Meanwhile, learning systems depended largely on an industry-specific standard, SCORM 1.2, which tracks a very limited number of data points. As data became routinely referred to as "the new oil" it seemed that learning platforms were still in the steam age when it came to analytics. Attempts to update SCORM 1.2 had only partial success, and it was not until the advent of xAPI (also known as Tin Can or the Experience API) that SCORM received a viable successor. Still, there seems a lot of confusion about this area in L&D circles, perhaps the legacy of an industry that has not historically been that hot on evaluation.

E-learning entrepreneur Donald Clark pinpoints this confusion in a recent blog post:

"

Everyone's talking about analytics, but few are talking about the analysis to show how this will actually help increase the efficacy of the organization. Some are switched on and know exactly what they want to explore and implement, others are like those that never throw anything out and just fill up their home with stuff—but not sure why. One problem is that people are shifting from first to sixth gear without doing much in between.[24]

Some of his recommendations are to:

- Focus on correlations with business data (e.g. "Did the sales training actually increase sales logged in Salesforce?"), something that an LRS can do using xAPI
- Harvest data from simulation training using AI in a diagnostic fashion (e.g. "What deep insights does the data from simulation training give into trainee behaviour?")
- Use data to improve online learning, but with a mindset that is not worried about exposing the weaknesses of what has been developed

He also points out some of the difficulties with using data and AI and machine learning for learning that indicate a steep learning curve ahead for L&D professionals as this becomes more a feature of their landscape.

AI and automation

Artificial Intelligence has had numerous "winters" but has, more recently, emerged (particularly in the last decade) as a critical technology driver that is starting to have effects in almost every business to a greater or lesser degree. Whether or not you believe in what writer and journalist John Lanchester has called "an imminent artificial intelligence job apocalypse,"[25] it seems clear that many new jobs are likely to be created and old ones reconfigured as machines take over more and more routine thinking tasks from humans.

AI is also taking on tasks that could never have been affordably undertaken by humans (personalizing learning recommendations for users of an LXP comes into this category). Those who have to manage such automated tasks and functions need at least an understanding of how AI does what it does.

These new knowledge and skills needs will increasingly become a focus for L&D. They also intensify the need for learning systems that can support continuous learning and effective reskilling at pace and at scale.
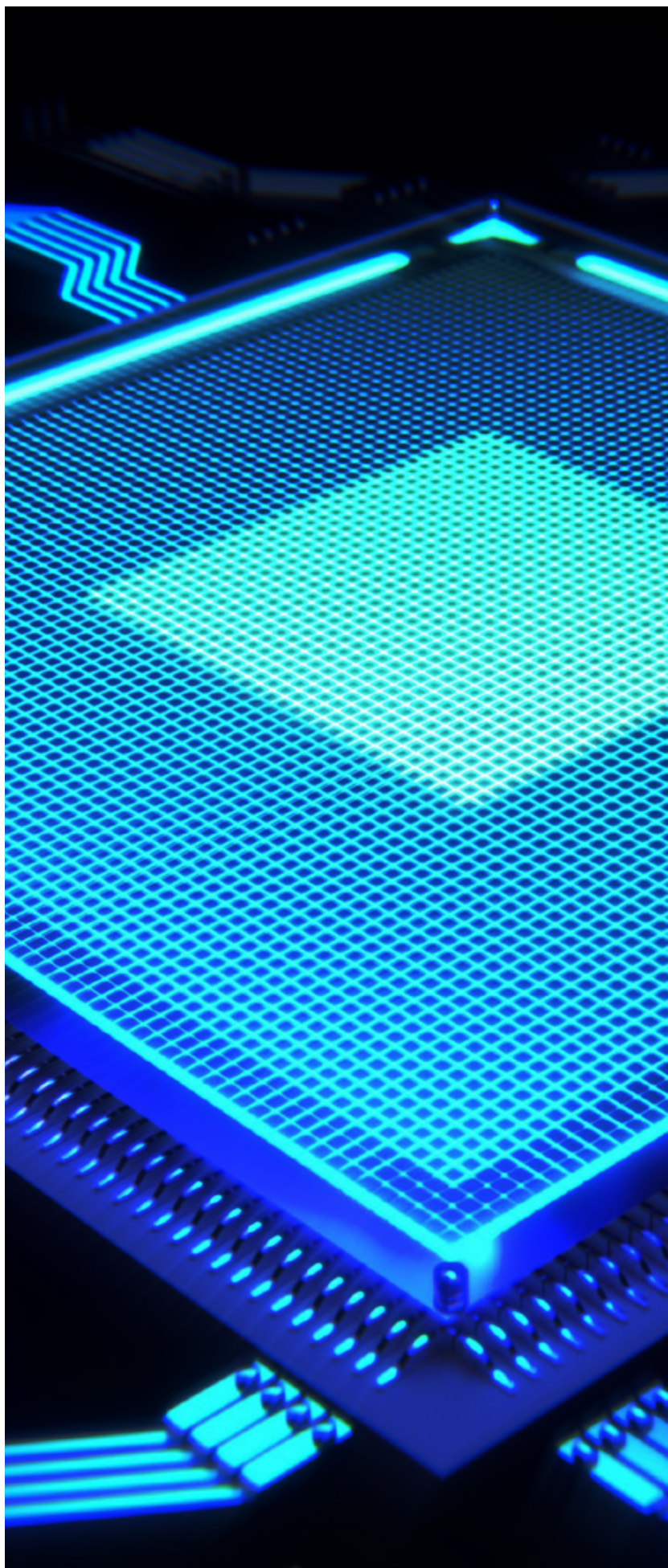
Changes in the theoretical underpinnings of workplace learning

Creating self-paced online learning required theoretical underpinnings, since the experience and charisma of human trainers could not be leaned on, as it often was in the world of stand-up training, to produce a satisfactory result. However, the models that came from pre-internet distance learning did not seem sufficient to cover this new situation.

Instructional design orthodoxies fail

As the first decade of the new millennium wore on, more and more dissatisfaction was expressed with a great deal of the academic and other literature that formed the canon of instructional design. Learning styles, ADDIE, Myers-Briggs personality types, constructivism, the Ebbinghaus Forgetting Curve … one after another of these shibboleths have been subject to fervent denunciation and equally fervent counter-denunciation by their supporters.

With its roots in military training and perhaps too much early influence from the behaviorist theories of controversial psychologist B.F. Skinner, training was seen to have a slightly shaky intellectual foundation.

New input from neuroscience, psychology

Further broadsides came from the rapidly developing field of neuroscience, whose insights, along with those provided by psychology, seemed to contradict much of the received wisdom in ID—although without necessarily replacing it with a clear set of best practices. The result was a lot of fervent debate, the frequent coining of new buzzphrases that seemed to offer a (usually illusory) sense of certainty, thousands of clickbait blog posts, and a great deal of "neurobabble" from conference platforms.

70:20:10, JIT, courses not resources, micro, nano, gamified…

In this slightly chaotic situation, views coalesced around some broad areas of agreement:

- Informal as well as formal learning was important to the way adults learn
- The 70:20:10 observation downgraded the importance of formal instruction (the 10%) in favor of social learning (20%) and learning on the job (70%)
- "Just in Time" performance support, possible in a connected, always-on world, obviated the need for much "just-in-time" learning and could be delivered "in the flow of work"
- "A course" was no longer the default unit of instruction ("resources not courses" became the mantra); instead, resources and experiences from different sources and in different "modalities" could be organized into personalized "learning pathways"
- Content should be smaller (micro-learning, nano-learning)
- Designers had to work harder at engaging learners, drawing on insights from neuroscience, psychology and the consumer realm that propelled them in the direction of game-based learning and widespread gamification
- With so much free content on offer, varying greatly in quality, curation was now a core activity

The LXP, and the LXP-like features added to LMSs, can be seen in part as the vendor response to customer demand driven by this thinking.

Typical features of an LXP

So if the LXP now exists as a settled entity, how should we describe its distinctive features?

Drawn from numerous analysts, the list to the right seems to us to represent the main characteristics of a modern LXP. Not all solutions will do all of these things, and emphasis varies between different solutions, but almost all will at least pay lip service to the majority of these as capabilities or have them on the roadmap.

10 key features of an LXP

1. Consumer-grade interface and experience
2. Advanced search
3. Personalization
4. Mobile friendly
5. Any content
6. Curation
7. Social features including user-generated content
8. Skills framework
9. Badging, assessment, certification
10. Advanced analytics
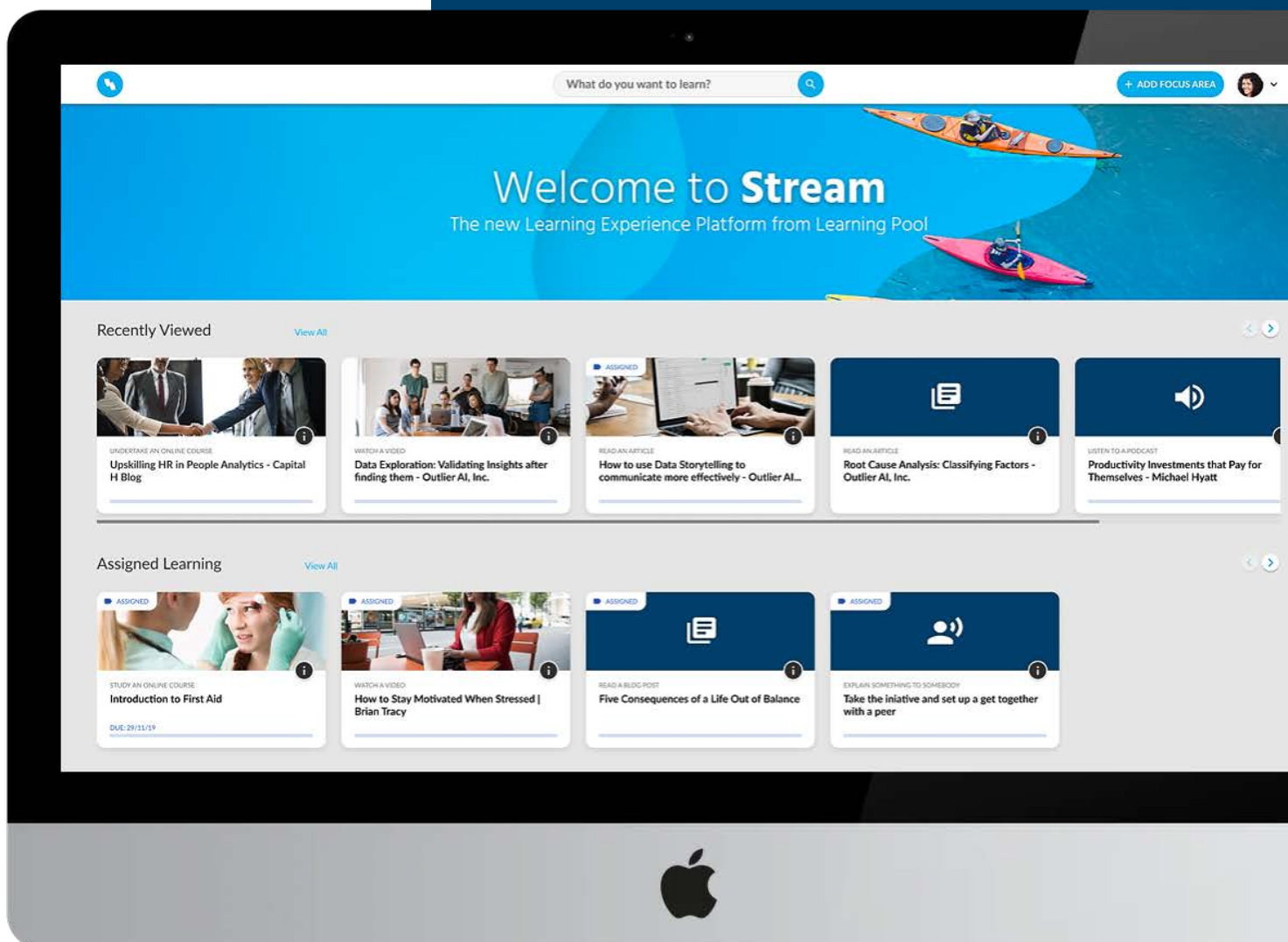
Consumer-grade interface and experience

This might seem like a big ask, given that it pits what is essentially a niche business system against interfaces provided by companies the likes of Facebook and Apple—some of the largest companies in the world who employ the cream of design and UX talent—but the key point about an LXP is that it is designed around the user not the administrator, and that is a very different design orientation, which of itself can make a huge difference. Expect user-centered design and a user experience that feels to the learner like it is "for me" rather than solely to fulfill the requirements of the organization.

In some cases this can mean eschewing the user interface altogether in favor of pushing resources out via other channels—for example, through collaboration tools such as Microsoft Teams or Slack. This sort of fluid integration, which brings with it a degree of platform "invisibility," is very much part of the modern consumer experience and therefore necessarily influences the trajectory of LXP design.

Advanced search

Given that consumer expectations around the acquisition of knowledge and information are set principally now by Google, one of the most advanced AI companies on the planet, provision of a consumer-grade experience should necessarily entail sophisticated search. Clunky, proprietary engines as were seen in the past on many LMS solutions will no longer
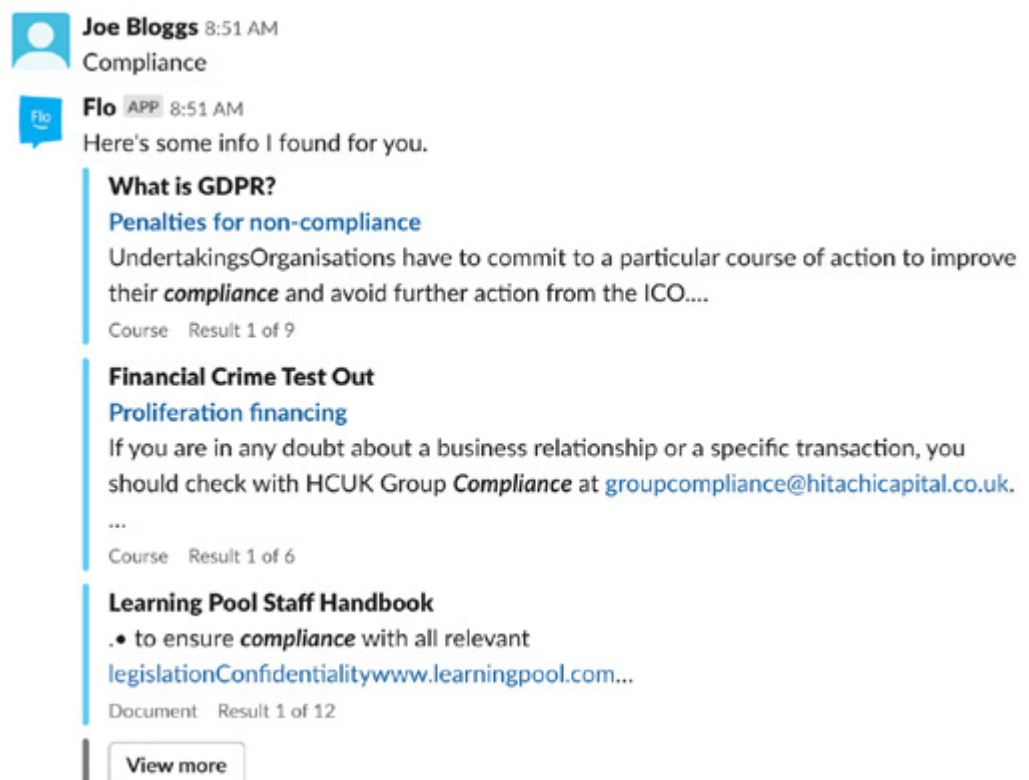
fit the bill on a platform where content resources are numerous and diverse (see "Any content" on page 24) and need to be found quickly and easily. And clearly a self-directed learner will rely far more heavily on search than one who expects to be spoon-fed information.

Discovery of the organization's learning resources has been identified by Josh Bersin as "the original problem these products solved,"[26] and great search is the lynchpin of discovery. It is a justifiable expectation of the user that search will be far more granular than it currently is in many learning systems, taking the user not just to the associated piece of learning but to the particular paragraph, video, or other component within it—"deep search" as some call it.

Personalization

Donald H. Taylor's 2019 Learning & Development Global Sentiment Survey has identified personalization as the number-one trend in 2019,[27] but it seems that people often use the word to mean different things.

In the context of LXPs, personalization refers to letting learners choose their own focus areas, add their own content, and follow their own pathways. Every user logging in to the LXP should have a slightly different experience; a homepage tailored to their pathways, their personalized recommendations (driven by AI in some cases), and their social feeds.

An LXP chatbot, Flo, working within Slack to bring learning into the workflow

Mobile friendly

Rather than providing a mobile version of what is essentially a desktop application, the LXP belongs to an era of responsive design where by default the needs of mobile users are factored into design from the beginning. A "mobile first" approach lets "the tail wag the dog" and makes key design decisions based on the distinctive mobile context of use (e.g. on a small screen, in a crowded train between stops, using gestures such as swipe, pinch, and spread, etc.). This approach places the LXP more effectively in the context of users' everyday lives, putting their learning and knowledge needs into the flow of working days alongside their need to know the latest sports results or whether or not it is going to rain that afternoon.[28]

Any content

Any LXP worth its salt will handle a wide variety of content types with ease within a single interface, meeting a user expectation that has grown up in the era of Google, YouTube, and other social media platforms for a seamless flow between search, discovery, and content consumption that embraces text, graphics, audio, motion graphics, interactivity, virtual classroom, and even virtual reality.

The LMS and its tracking standard, SCORM, were designed around a very limited set of content types. As soon as video began to be more widely used online it was clear that model had to change.

Curation

Another assumption of the classical model was a single source of content, usually the company or organization that owned the system. Only the organization, via its representatives in the learning department, would have the right to place content on the system. Once the definition of learning content began to widen (e.g. it didn't necessarily have to be a module of self-paced e-learning) and it became abundantly clear that there was a whole world of valuable learning content out there for free on the internet, economic realities dictated that use be made of them.

Since the quality, relevance, and fit-to-company message still had to be guaranteed in some way, curation became a core activity of learning departments. Curation is increasingly a function that can be automated through AI and tools such as Anders Pink. Handling curation as a core part of the learning system is now a reasonable expectation of an LXP.

User-generated content (UGC)

With the organization and its development partners no longer the sole source of content on the learning system, users themselves moved into the frame as an exciting new source of content generation. Pretty much all the content on social media is user-generated, and people have gotten used to the idea of this as a normal activity—even if all they do is post pictures of their cats and holidays on Facebook.

UGC is an exciting development for learning because it plays to contemporary theory that emphasizes the importance of "learning by doing" and helps greatly with learner engagement—not only regarding the person who generates the content but also the person who views it. Seeing a colleague or somebody like themselves participating in the learning can make it instantly more relatable. The LXP should support UGC and make it easy and frictionless for the learner.

Social

Alongside the behaviors that drive UGC, an LXP will typically support a variety of other social behaviors such as sharing, rating, conversational threads, creating groups and individual profiles, etc. LXP platforms from different vendors will vary widely in which of these behaviors they support and promote.

Nobody says you have to have all of these features to be a proper LXP (so-called "feature-bloat" has afflicted the world of enterprise LMS and is something to be avoided in an LXP, as it will tend to degrade the user experience). Here there is a chance for individual LXPs to shape a distinctive experience in what they choose to deploy.

Skills framework

In order to offer a taxonomy around the notion of any content, curation, and user-generated content, it becomes important to offer a framework of sorts to organize learning experiences into coherent collections. This can form the basis of a recommendation engine on the front end, connecting together "like" experiences regardless of source, and can form a powerful basis for analysis on the back end, allowing an administrator to understand which skills are being focused on by the workforce and to identify any skills gaps that could exist in the organization.

Badging, assessment, certification

The chance to earn badges for particular activities or fulfilling certain achievement goals is at the same time a social feature and an aspect of gamification. However, taxonomically, it also sits within the perhaps more serious category of certification and evaluation.

It would be a mistake to think that tracking, evaluation, and certification of learning—something perhaps more usually associated with the world of the LMS—is inimical to a user-centered concept like the LXP, designed to encourage self-directed learning.

Feedback is a vital part of learning. The training world, which has never previously been that strong on evaluation, is waking up to a new era of plentiful and readily available data that offers the chance to become more evidence based and perhaps even to assume a more strategic role within their organizations. As Donald H. Taylor points out in the report on his Global Sentiment Survey 2019, data is the common theme across the top three answers to the question of what will be hot in L&D next year. With its capabilities for advanced analytics, the LXP is set to play a pivotal role in this explosion of data-driven decision-making.

Advanced analytics

SCORM 1.2 offers a fairly limited array of data points to the administrator of an LMS. It can tell you whether someone took a course, completed a course, and how they scored on quizzes. But it can't tell you, for instance, how much of a related video that learner watched before taking the quiz or whether their passing a final assessment subsequently showed any correlation in improved sales figures.

The LXP, especially when integrated with an LRS, has an enhanced analytics capability that enables you to look across multiple content types, not all of them launched from the learning system, and to pull in data from other organizational platforms such as Salesforce to hugely enhance the possibilities open to the learning professional.

LXP and/or/ versus LMS

It might be inferred from the arguments advanced so far in this paper that we believe the LMS has had its day. That is not the case. Here are just a few reasons why it is unlikely that we will be writing obituaries for the LMS any time soon.

- While the use of freelancers and contingent workforces is no doubt advancing rapidly in the USA and UK, still the majority of work is done by full-time salaried staff.
- While sentiment in the industry has moved against so-called "click-next" self-paced e-learning as the default modality of content delivery online, there is no doubt that it continues to be a vital tool in meeting large-scale training needs, particularly in regulatory compliance, many of which could not be fulfilled at all by conventional means.
- The growth in the propensity toward self-directed learning does not alter the fact that large numbers of workers, probably the majority, are either content to passively receive direction in their learning or at a stage of their careers where they need a lot of handholding to support an externally imposed structure.
- The LMS has an entrenched position within most organizations (many have several), hosting large amounts of content and with workflows and processes well embedded around their use. Rooting the LMS out and replacing it with something different could be a major undertaking.
- In many cases, the LMS will be closely (perhaps even inextricably) integrated with a talent suite or other ERP system.

All of which raises the question of where this new entity sits in the mix. Does the buyer have to make an either/or choice between an LMS and an LXP, or do they need both? In other words, do the two systems have a complementary set of capabilities?

The decision is complicated by the fact that, while the two are clearly very different entities, the available systems on the market vary a great deal, and to a degree shade into each other.
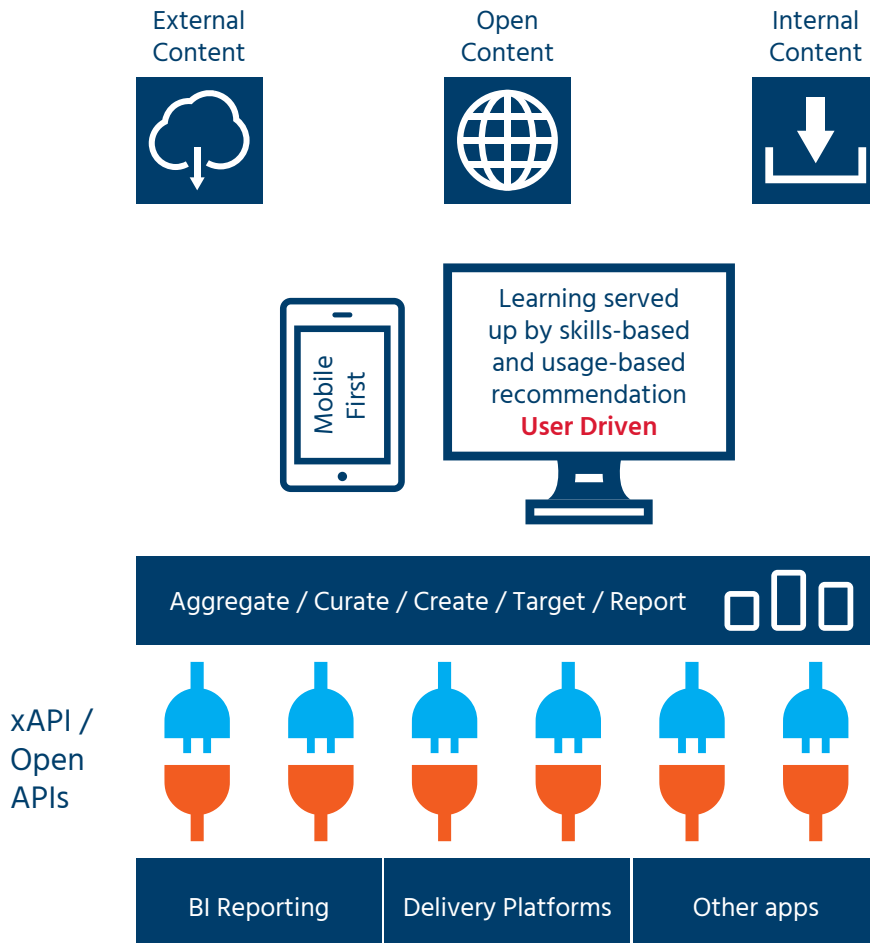
We have talked about the classical model of the LMS in this paper in order to draw a contrast with the LXP, but almost since its first inception the LMS began to add features and capabilities that drew it away from that model, so that today many LMSs have LXP-like features. There again, many LXPs have LMS-like features, and some will have grown out of an LMS code base.

In her blog post "LMS or LXP?" (**https://www.linkedin.com/pulse/lms-lxp-laura-lee-gibbs/**) digital learning consultant Laura Lee-Gibbs, of Learn Fox, provides a common-sense discussion of the topic. For her the defining difference is one of design orientation: "[The LXP] is a paradigm shift from the compliance-led delivery of learning to that of user-engagement-led curation of self-directed learning."[29]

To put it more simply, the LMS is designed for administrators, the LXP for learners.

Lee-Gibbs sums up these differences in a useful diagram (see Figure 6 opposite).

LXP—Learning Experience Platform

External Content	Open Content	Internal Content

Mobile First

Learning served up by skills-based and usage-based recommendation
User Driven

Aggregate / Curate / Create / Target / Report

xAPI / Open APIs

BI Reporting	Delivery Platforms	Other apps

LMS—Learning Management System

Multi-mode training management

ILT / Webinar / Online / Documents

Training Management First

Learning served up by business rules
Admin Driven

Administration & Reporting

The traditional LMS is adding mobile apps, open APIs, and the ability to suck in external & open content

Figure 6. Source: Laura Lee-Gibbs/Learn Fox, 2019

Inspired by Laura Lee-Gibbs's article (**https://www.linkedin.com/pulse/lms-lxp-laura-lee-gibbs/**), here is a set of considerations for potential buyers when making their decisions about what type of learning systems they need.

You should consider an LMS if your needs are:

- Static—content won't change much
- Readily taught
- Easily assessed
- Required to keep workers safe and legal

You should consider an LXP if your needs are:

- Dynamic—content constantly changes
- Reliant on gaining experience
- Difficult to assess
- Required to keep your organization growing

Working through both sets of considerations, a given buyer might decide they need both—or, more likely, wish to add an LXP alongside an existing LMS configuration). In such a mixed ecosystem, where content is hosted on the LMS, the LXP might be thought of as a "learner experience layer" pulling content from the LMS. We would consider this pattern a "three-layer architecture" with the "experience" layer presenting the core user interface, aggregating content from providers sitting underneath pushing activity data to a central "data" store.

Learner Experience Layer

Online Content Providers

Data and Insights Layer

The ideal implementation of the three-layer architecture would involve the LXP providing the front door to all training opportunities, whether or not they reside on the LMS. The LMS itself is then treated no differently to any other content provider, it just happens to be the home of *your* content.

The reality of unifying the experience layer may be beyond most organizations in the short term. While we would all love to connect our various systems together with seamless APIs, it seems more likely that some of our initial integrations will involve linking off from an LXP to an LMS at some point, keeping both user experiences, although somewhat relegating the LMS interface to only deliver on certain requirements. In such cases the three-layer architecture can be expanded to include both LXP and LMS-based activities, with the LXP acting as a unified homepage—see Figure 7 for an expanded example of an LXP plus LMS ecosystem from Learning Pool.
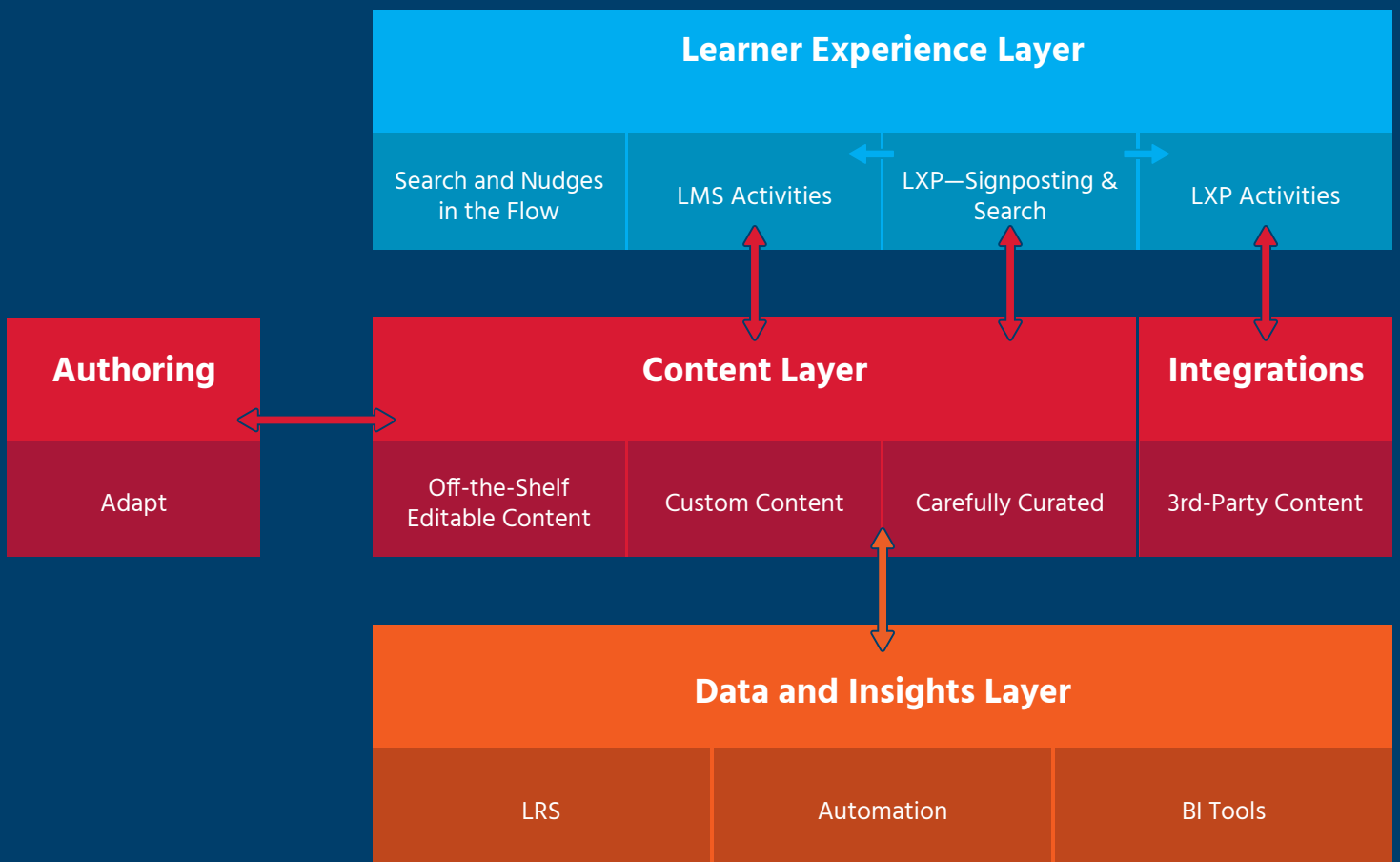
Figure 7.

LXP and LRS

"Integration" is an important word in understanding the full power of an LXP—in fact, the ability to integrate with other systems might be considered a key capability of the LXP. To understand why this is so important it is necessary to consider a technology driver we haven't yet touched on in this paper, which is the growth and spread of Application Programming Interfaces, or APIs.

APIs have been around for a long time, but Web APIs in particular received a big boost from the rise of social media platforms in the Web 2.0 era, allowing cloud-based applications to integrate and share information across the internet. At this time, the average LMS was an installed solution, and cloud-based LMSs were only just beginning to be seen, which opened the way to more integration with other systems.

The implications for tracking of learning—which previously was always done within the LMS, using SCORM—were profound, but the industry had to wait for the introduction of a learning-specific type of API, known as xAPI, in 2013 before it could wean itself off its dependence on SCORM and embrace this new uber-connected world.

The Experience API (xAPI)

In the classical model of the LMS, launching, consumption, and tracking of learning content usage by the learner all take place within a single closed system. xAPI, by contrast, allows tracking of learner activity, which could be consumption of content but could also include a wide variety of learning experiences on platforms external to the LMS.

It also allows other data concerning the learner to be correlated with this experience data, from which causal relationships can be inferred—e.g. learner takes an e-learning module on negotiation skills and attends a sales workshop; her assessment scores as recorded by her line manager in the HR system improve; her sales figures as recorded in Salesforce go up. The means of bringing all this data together to tell such a story is the LRS and is also external to the LMS, although it can be integrated within it.

The LRS enables two things that couldn't previously be done within a SCORM-only environment: tracking of the full range of learner experiences and activity within a 70:20:10 continuum, and correlation of activity data with business information to link training investment to outcomes at both the organizational and individual levels—an end-to-end, personalized, learning ROI evaluation system.

It will be seen straight away that the LRS is a natural partner for the LXP, both having been designed around a modern learning environment where learning comes in many shapes and sizes and from many different sources.

Would it be possible to operate an LXP without an LRS? Well, yes. But having proper tracking of the rich mix of learning experiences provided by an LXP, and taking advantage of the expanded analytical capabilities it offers, is liable to entail quite a bit of bespoke integration work using other means. Having a defined standard and set of protocols as represented by xAPI, specifically created for the tracking and evaluation of learning, makes the process a lot simpler to implement and probably considerably less expensive.

It is the position of this paper that an LXP that did *not* talk the language of xAPI would be missing an important trick.

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Section 2:
The State of
the Market
for LXP/LRS

LXP and LRS cross the chasm

Original, exclusive research commissioned by Learning Pool shows that LXP and the closely related product category of Learning Record Store (LRS) have already achieved significant penetration in the learning systems market in the US and UK and are poised to become mainstream in the next few years.

Headlines

- LXP is a potential billion-dollar market
- More than 50% of companies likely to buy an LXP say they will do so in the next 24 months
- One in four US companies suggest they already have an LXP in some form or another
- LRSis also a potential billion-dollar market, but a significant share of this will go to packaged products (i.e. LMS + LRS or LXP + LRS)
- One in five US companies suggest they already have an LRS in some form or another

Methodology

Learning Pool instructed CIL Management Consultants to conduct research into the markets for LXPs and LRSs in the UK and USA. The output report is based quantitatively on 651 survey responses, of which 57% came from the USA.

Results

Current level of penetration of LXP and LRS technologies

The research suggests that both the LXP and LRS markets are probably past their first phase of development. According to the survey, current penetration of LXP is estimated at **20%** in the UK and **27%** in the USA.

LXP penetration in companies > 250 employees

LRS penetration is estimated at **25%** in the UK and **19%** in the USA.
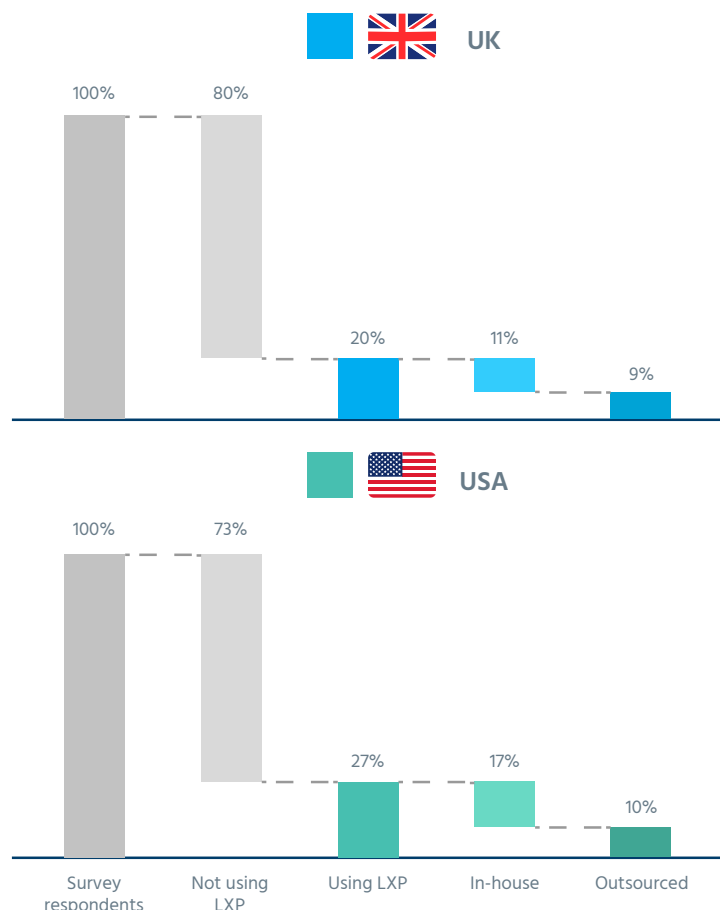

Figure 8. Source: CIL Survey

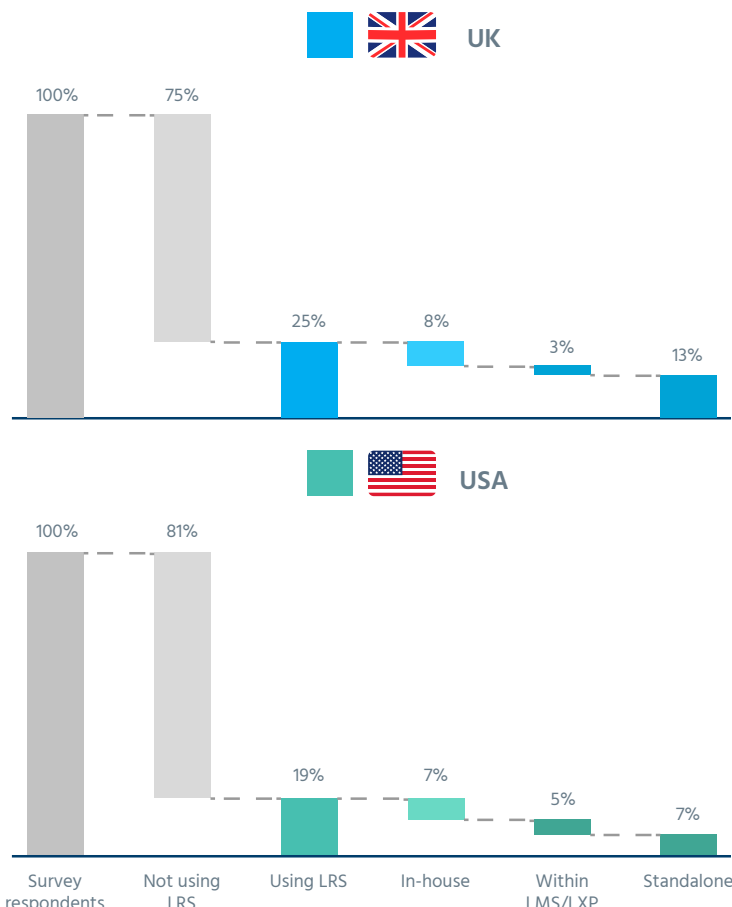### LRS penetration in companies with > 250 employees

Figure 9. Source: CIL Survey

A caveat should be entered here, however. Although care was taken to define what was meant by LXP and LRS in the survey, respondents may have accidentally or willfully included looser definitions in claiming that they used these technologies already. Further qualitative research will be useful in confirming these estimates.

Drivers of customer adoption

Adoption of the two technologies has been driven by customer needs, with a large part of the market currently using in-house-developed tools (which may be less fit-for-purpose than those provided by outside suppliers). The majority of customers look to lower their cost of delivery, enhance end-user experience, and increase employee engagement and empowerment when adopting an LXP.

Current market size and potential, LXP and LRS markets

CIL estimate the UK LXP market to be worth **£40m**, representing 25–30% of the e-learning systems adopted in the UK. The estimated US market is currently worth **$141m**. Given the needs identified in the survey, CIL estimate the market opportunity for LXP or LXP-like solutions to be **£135m–£165m** in the UK and **$1bn–$1.3bn** in the USA.

CIL estimate the UK LRS market to be worth **£41m**, **£13m** of which is bundled within LMSs and LXPs. CIL estimate the US market to be worth **$117m** and to have a larger share of packaged sales. Based on the survey, CIL estimate the LRS market opportunity to be **£140–£190m** in the UK and **$0.9bn–$1.2bn** in the USA.

Outsourced LXP market size [1,2]
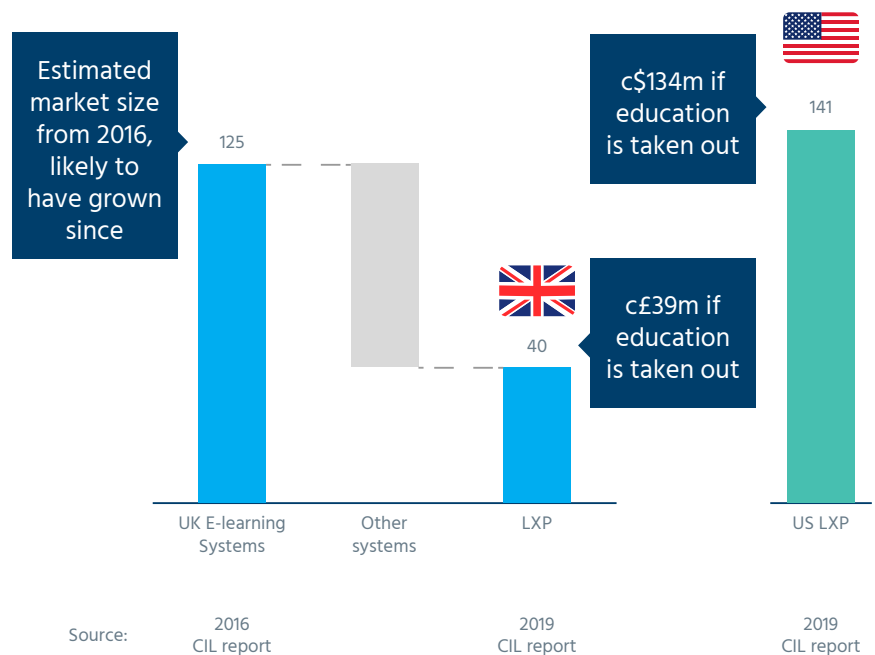
Notes: 1) Based on reported LXP usage by survey respondents. Respondents that use LMS systems as their LXP (e.g. Docebo, Grovo, LinkedIn Learning, Learning Pool) have been omitted from the market sizing. 2) Excludes companies that have developed an internal solution.

Figure 10. Source: CIL Survey

Outsourced UK LRS market size [1] £m
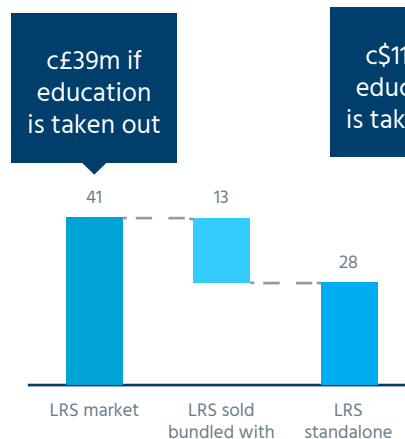
Outsourced US LRS market size [1] $m
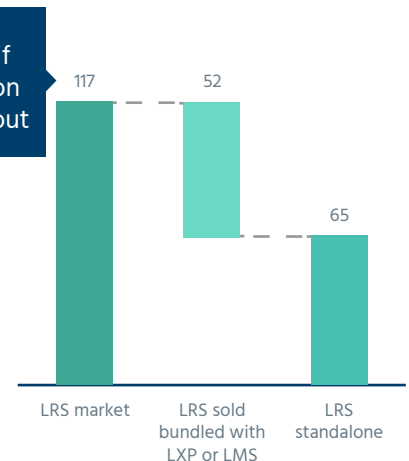
Notes: 1) Based on reported LRS usage by survey respondents. Users of an open source solution have not been included in the sizing calculations.

Figure 11. Source: CIL Survey

How fast will the market get there on LXP?

64% of US respondents thought it was likely their organization would purchase an LXP and, of those responding "yes" to this question, nearly three-quarters suggested this purchase would happen in the next two years. The UK response was somewhat more muted, with **46%** saying they were likely to purchase an LXP, but, again, more than half of those saying "yes" thought it likely to happen in the next two years.
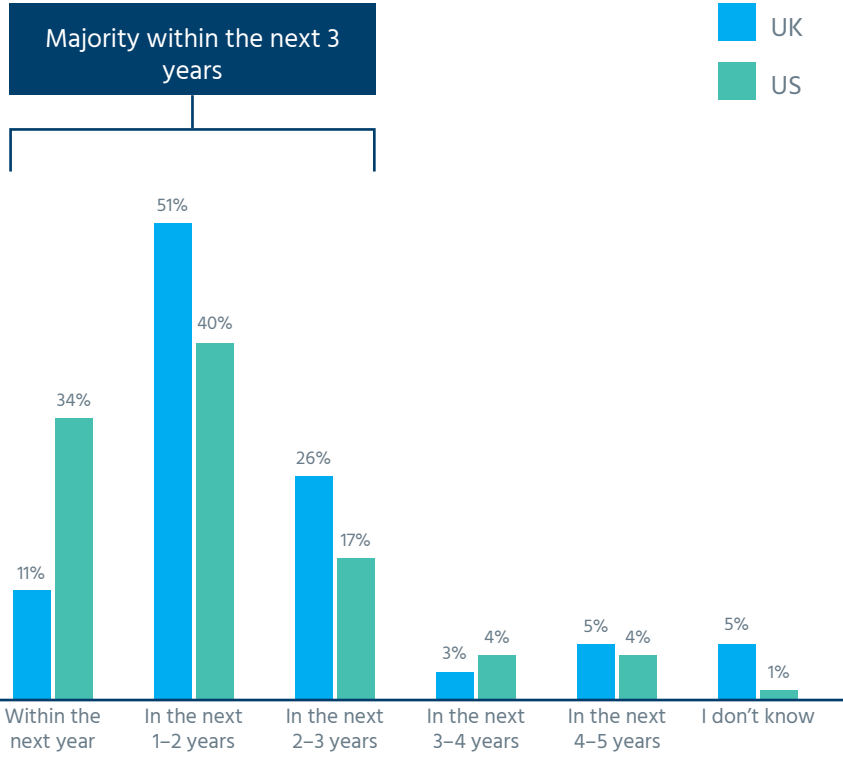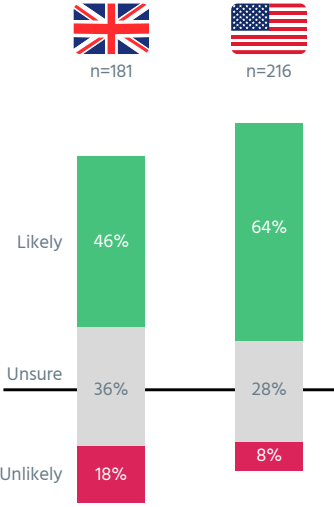
Again, a caveat should be entered here: organizations tend to be over-optimistic when identifying the timescales for future purchases. The key point, however, is that there is intent to purchase in the next few years.

"How likely are you to purchase an LXP in the future?"

🇬🇧 n=181   🇺🇸 n=216

	UK	US
Likely	46%	64%
Unsure	36%	28%
Unlikely	18%	8%

"When are you most likely to purchase an LXP?"
UK n-81[1], US n=138[1]

🟦 UK   🟩 US

Majority within the next 3 years

	Within the next year	In the next 1–2 years	In the next 2–3 years	In the next 3–4 years	In the next 4–5 years	I don't know
UK	11%	51%	26%	3%	5%	5%
US	34%	40%	17%	4%	4%	1%

Notes: 1) Question only answered by respondents who indicated they were likely to purchase an LXP in the future.

Figure 12. Source: CIL Survey

"What was the main driver for your decision to use an LXP?"

Decision-making driver	% Response	
	UK, n=67	US, n=123
To lower cost of delivery	20.0%	21.1%
To enhance our end-user experience	16.9%	21.1%
To increase employee engagement	15.4%	16.3%
To give employees the ability to select what training to take and when to take it	13.8%	12.2%
To allow us to author our own content	7.7%	3.3%
To track more data	6.2%	3.3%
To push mandated training to employees more effectively	6.2%	4.9%
To be able to deliver training content remotely	4.6%	5.7%
To match training performance to employee performance	4.6%	2.4%
To deliver interactive training content / allow employees to interact more with their training	3.1%	9.8%
Other (please specify)	1.5%	0.0%

Drivers

For LXP, the key market drivers are to lower the cost of delivery while improving user engagement and experience via self-directed learning.

For LRS, the key market drivers are to deliver more learning data to prove the ROI for learning and find/ fix issues with content.

Figure 13. Source: CIL Survey

"What has been the most significant benefit to having an LRS?"

🇬🇧
n=54

Benefit	Value
Increased range of data available	24
Ability to prove ROI from e-learning investments	13
Data analytics capabililties within the platform	10
Using learner data to drive further automation	6
Using learner data to power content recommendations	
Other	1

🇺🇸
n=69

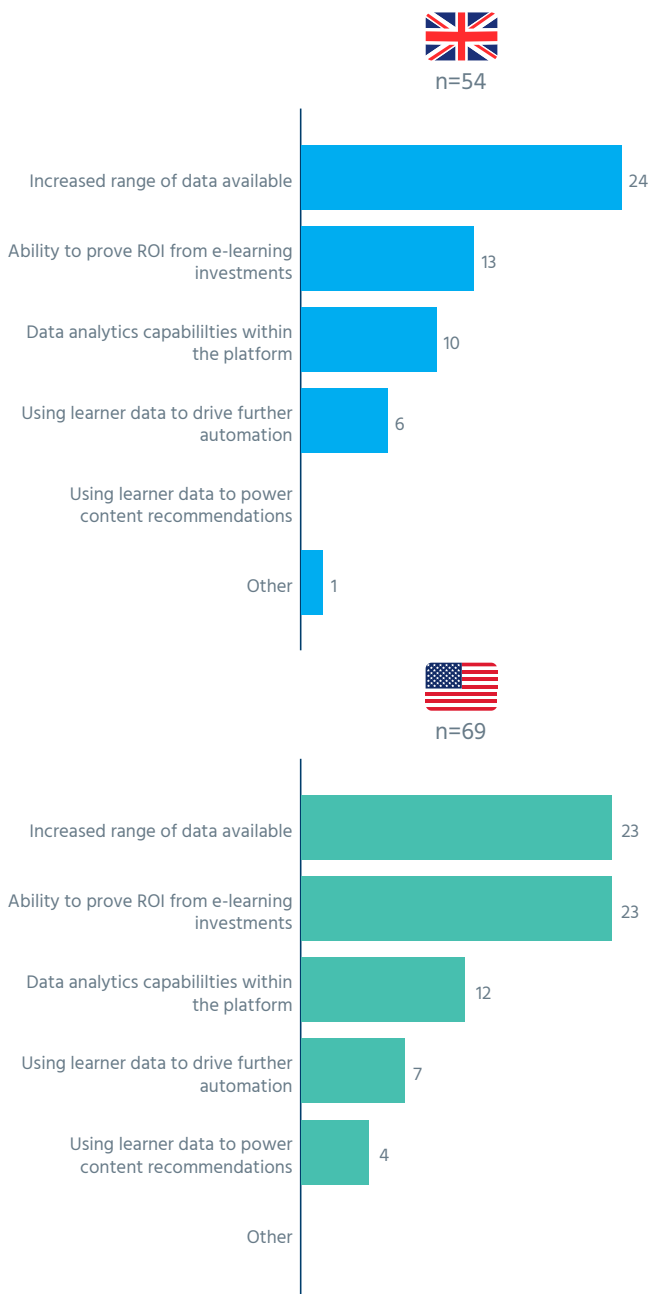| Benefit	Value
Increased range of data available	23
Ability to prove ROI from e-learning investments	23
Data analytics capabililties within the platform	12
Using learner data to drive further automation	7
Using learner data to power content recommendations	4
Other	

Figure 14. *Source: CIL Survey*

It is particularly interesting to note that the above concerns correlate well with other recent surveys, in particular Donald H. Taylor's 2019 Global Sentiment Survey.[30] This survey found that the top six topics predicted to be hot in workplace learning for 2019 were as follows:

1. Personalization/adaptive delivery
2. Artificial Intelligence
3. Learning analytics
4. Collaborative/social learning
5. Micro learning
6. LXPs

Clearly, the LXP is moving to occupy a central position in the thoughts of L&D professionals, not only as a thing in itself but also as regards their general preoccupations.

Next steps

A desirable next phase for this research would be to conduct qualitative interviews with sample organizations to get a deeper understanding of the LXP and LRS markets and adjust the findings accordingly.

Learning Pool is also now interested in working alongside analysts with knowledge of the UK and US markets to further interrogate and interpret the results contained in the report.

"To what extent do you agree that the following will be a focus of your organization over the next 3 years?"
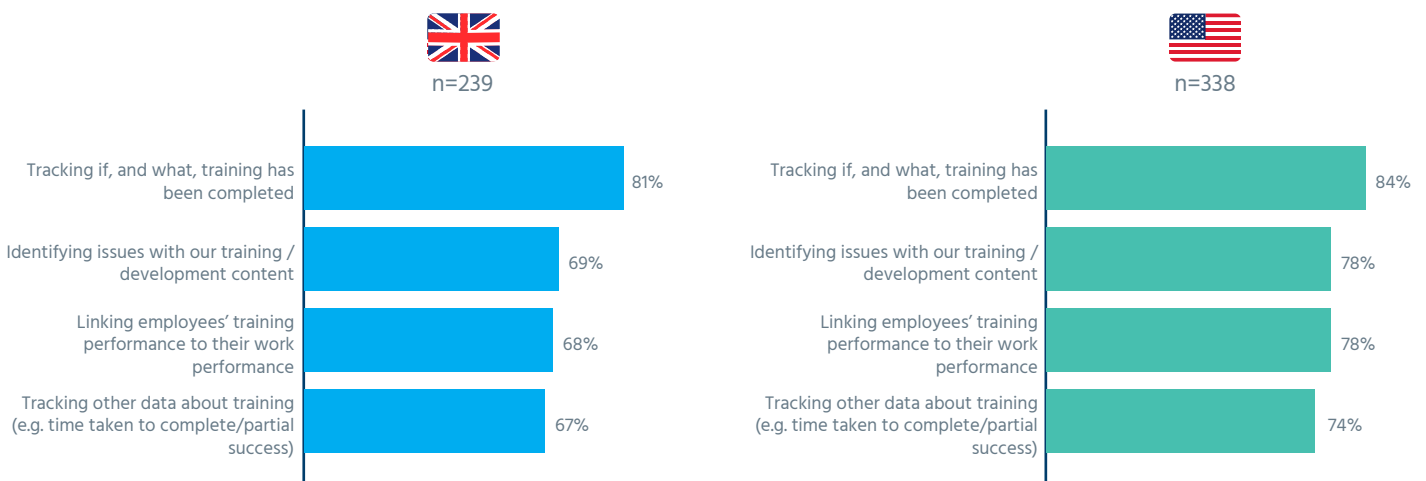### Data-analysis-related needs, % agree

🇬🇧
n=239

Need	Value
Tracking if, and what, training has been completed	81%
Identifying issues with our training / development content	69%
Linking employees' training performance to their work performance	68%
Tracking other data about training (e.g. time taken to complete/partial success)	67%

🇺🇸
n=338

Need	Value
Tracking if, and what, training has been completed	84%
Identifying issues with our training / development content	78%
Linking employees' training performance to their work performance	78%
Tracking other data about training (e.g. time taken to complete/partial success)	74%

Figure 15. *Source: CIL Survey*

Respondents were asked about other needs, only data-analysis-related needs are shown here for clarity.

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Conclusions

Riding the hype curve

As Donald H. Taylor points out in his introduction to this paper, LXPs are hot. And therein lies a danger, he says, since hot topics don't always get well defined or dispassionately discussed. And that is certainly the case with this particular hot topic, the main subject of our report, learning experience platforms.

Although it now seems widely accepted in the world of organizational learning that there is such a thing as an LXP (even if we can't quite decide on the correct name for it) there is as yet no fixed and agreed definition for what it should do, let alone a consistent feature-set. This paper is a modest contribution toward helping such a definition coalesce; however, in the current absence of such a thing, and a plethora of aspirational claims for the benefits LXPs will bring to learning departments and their learners, it is not surprising that an analyst such as David Perring of Fosway Group should have concerns about the LXP concept being over-hyped.[31]

Other commentators, notably Dani Johnson of Redthread, have pointed to the confusion produced by this new introduction to the learning-systems market at a time when there is also a proliferation of new-point solutions.[32] It was all so much simpler when all we had to think about was the LMS!

This paper has been an attempt to dispel some of the smoke, to turn down the heat, and perhaps shed a little clear light on what the LXP brings to the table.

So now it is perhaps time to nail our colors to the mast and lay out our vision for the LXP. It won't be everybody's vision, but we feel that we can at least say it is the result of a considerable amount of research, practical development, numerous conversations at all levels of the market, and a lot of hard thinking.

Our vision for powering the modern learner experience

Much of the confusion in the market, we feel, comes from visioning the LXP too narrowly as merely a content discovery layer. Many in the field of workplace learning—including David Perring and Nick Shackleton-Jones, but certainly not limited to those two commentators—feel that we place far too much emphasis on learning content as the be-all and end-all. The term "learning" has become a synonym for learning content. Having only recently and partially escaped a fixation on **courses** as the mode of learning, we risk replacing that with an equally narrow fixation on **content**. This ignores the arguably much greater importance of other elements in learning, including experiences, practice, feedback, performance support, etc.

So if we think of the LXP *only* as a better way of connecting learners with content—albeit a much wider and more diverse pool of content—we risk massively missing the point about what this new entity could bring.

In this paper, we feel we have established two important points:

1. Our extensive survey of drivers in Part 1 shows that the development of LXP has been substantially demand driven. In other words, it has taken shape according to what those who work every day with learners saw as clear and pressing needs, needs that existing learning systems were not meeting. Also, as many of those drivers come from macro forces external to the world of learning, LXP can hardly be portrayed as an artifact of a particular market niche. It would be truer to say that, before it arrived, the learning market had an LXP-shaped hole.

2. The original research we commissioned, detailed in Part 2, shows not only that LXP has achieved substantial traction in the buyer market but also that the LRS is on a roughly parallel adoption path, indicating a level of linkage that is surely not entirely coincidental. The two are united in Learning Pool's LXP solution, which naturally pairs with Learning Locker, our LRS. Obviously, buyers can choose other LXPs and other LRS products. However, even where buyers choose ways independent of the standard xAPI to collect and analyze their data, we believe that advanced analytics are an essential component of the LXP vision. LXP brings not only a greater diversity of **content** types but a greater diversity of **learning activities**, not all of which involve interacting with content, and which xAPI was built to be able to record. Further, unlike the classical LMS, always conceived as a unitary system, LXP belongs the world of fluid integrations, driven by APIs, and thus in a world of **real-time data**. You might conceive of this multiplicity of platforms, tools, and systems as a **stack** or as an **ecosystem**, but whichever metaphor or mental model you choose, it needs to recognize the distinct difference of this way of operating from the classical, unitary, destination-platform era for which LMS was conceived. Data and analytics function differently in this new world and need to be an absolutely fundamental part of the vision.

It is true that one of the virtues of the LXP as an idea, one that has captured the imagination, is that LXPs are as attractive for what they don't do as for what they do, avoiding the features-bloat of many enterprise LMSs. However, this makes it too easy to overlook the dynamic flexibility that linkage with an LRS can bring. Unfortunately, this very flexibility makes LXP a harder idea to grasp in some ways, as it adds complexity. An LMS is a simple enough thing to understand (partly because we are very used to it), but the rigidity in that model is not in line with how learning really happens.

Learning is a complex thing. The LMS-plus-content model made it seem simpler than it really is and, as a result, proved unsustainable. With the LXP, as we have visioned it here, learning systems have perhaps evolved to a level of sophistication where they finally stand a chance of doing justice to that group of highly diverse, individual, and often slightly mysterious processes which take place every day in every workplace under the label of learning.

3 key considerations for powering a modern learning experience

MAKE DATA CENTRAL TO YOUR STRATEGY **1** How will you judge your success, your impact? What measures and KPIs are really important? Remember that learning is not about what people know but about what they do. How can you gather data about what they do, how they perform, and make a causal link with data to the activities they undertook to get there?

DON'T BE HYPNOTIZED BY CONTENT **2** Focus on the experience over all, and, at a more granular level, the discrete experiences that change learners and which, taken together, constitute a learning path. Remember the importance of practice, feedback, challenges, and some of the key elements of learning that used to lie outside the capabilities of digital learning but increasingly don't.

PERSONALIZE **3** Accept that learning is a personal thing, experienced—and therefore in some senses owned—by the individual. Make it feel like it's theirs and use the power of technology to serve not coerce. Balance the needs of the individual with those of the organization. Look for win-wins,

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