LEARNING TECHNOLOGY

HARNESSING THE HR TECHNOLOGY REVOLUTION

INTRODUCTION

Technology has dramatically changed how people learn. The internet – enabled by smartphones, tablets, and so on – has become the default for finding out how to do things, from searching for answers via Google or voice-activated tools like Siri, to learning skills via YouTube or (more intensively) via MOOCs. Learning has moved from a periodic activity to an ongoing, on-demand part of daily life. This change has major implications for how organisations can deliver learning. A simple way to imagine this is to consider two ways for employees to learn Excel.

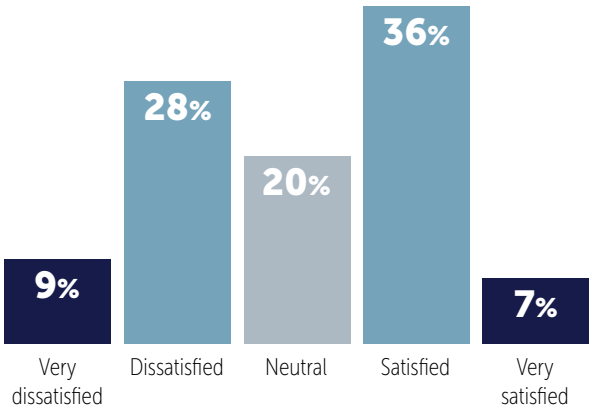
1. The traditional model involves training needs analysis, instructional design, and classroom training. This model requires a lot of time and expertise.
2. The new model is employee-initiated, just-in-time microlearning. The poster child for this new model would be an employee asking their smartphone 'Hey Siri, how do I do a pivot table in Excel?' The new model is often more effective, faster, and, in many cases, not just cheaper, but free.

Rather than say 'a' new model, we really should say there are a number of new learning models that include:

- technology that helps deliver a sophisticated blended learning solution;
- technology that provides access to low-cost online courses;
- tools that connect learners with their peers;
- and the on-demand 'ask Siri' learning that we posited above.

FIGURE 1

On a scale from 1 to 5, how satisfied are you with your current HR technology for managing learning?



Source: CRF Member Survey, 2018

There is a surprisingly wide variation in satisfaction with learning technology. The good news for those currently dissatisfied or neutral is that many firms (over 40%) are satisfied or very satisfied – so success with learning technology is possible.

These new models sit in addition to traditional instructor-led training, and there is a whole other aspect of technology that deals with the tracking and administration of learning, irrespective of the model (i.e. the familiar Learning Management Systems).

While the new models are enabled by technology, technology is not the main issue. The main issue is rethinking how the organisation deploys all these new models of learning. The change will be difficult because much of the infrastructure of the learning function (from how budgeting works, to job accountabilities, to HR skillsets, to the existing learning management system) has been designed with the traditional model in mind.

It's easy for HR to buy learning technologies; deploying them effectively is harder. This report examines the overall landscape – what's new, the opportunities and the realities that stand in the way of seizing those opportunities.

POPULAR LINGO

Curate

There is so much learning content available that the Learning function may need to focus more on helping people find the right content (curation), rather than creating or delivering content.

Gamify

It's been noticed that computer games can hold people's rapt attention for hours. There are many ways of using games (gamification) to make learning more engaging. This is easier to implement online than in classroom learning.

Microlearning

Very short (e.g. 5-10 minute) learning modules that are typically accessed as needed.

Social learning

Social learning in anything that makes it easier for people to learn from their peers; it could be discussion forums, communities of practice, or user-created content.

SCORM and xAPI

For an eLearning programme to be compatible with most LMSs it needs to be built according to some standards. SCORM (Shareable Content Object Reference Model) is one early standard; xAPI (Experience API or sometimes called Tin Can API) is a new standard which can capture data on the learner experience from many types of learning event.

WHAT IS LEARNING TECHNOLOGY FOR?

The trick with learning technology is to recognise that the goal is not to support the work of the training department; the goal of learning technology is to help employees learn and this may, potentially, have little to do with the traditional activities of a training department.

Technology could potentially support employee learning by:

- Helping identify what the employee needs to learn
- Making it easier to access learning (e.g. short learning sessions, large libraries of good content)
- Making learning more effective (e.g. better instructional design; built-in gamification).

HR would do well to understand where improved learning will have the greatest impact on the organisation's success and then seeing how technology can help.

THE LEARNING TECHNOLOGY LANDSCAPE

The learning technology space is confusing, and the maps provided by thought leaders are not always helpful. There is no generally agreed upon set of categories of learning software and a solution from one vendor might span several categories. Furthermore, vendors listed in the same category can be considerably different. Features like 'social learning' are tossed around but mean different things to different people.

The map below eschews fashionable terms such as 'Learning Experience Platform' for more prosaic fundamentals; organisations should have one or more systems from each of the core areas.

This simplified landscape should help bring some order to HR's thinking about the chaotic world of different training technologies. It also draws attention to the idea that HR should have some capability in each of the five categories.

Core Administration (LMS)

Purpose: Improve administration.

An LMS is the core learning system that handles administrative tasks such as tracking what learning modules people have done (often with a focus on compliance as the main driver), scheduling training, and providing a portal for accessing online learning. There are a host of other features, such as enabling discussion forums, that may exist in any LMS.

Content Creation Tools

Purpose: Enable people (professional trainers and others) to create learning content.

Content creation tools allow instructional designers to create eLearning programmes (e.g. an in-house programme on safety techniques). This includes tools that enable users to create their own learning content (e.g. a video on how to fill in the expense form).

External Content Libraries

Purpose: Provide access to high-quality online training content at a low cost.

There is a vast amount of free or low-cost learning available on the Internet. These tools can provide the means to curate this content.

Advanced Delivery of Blended Learning

Purpose: Deliver blended learning in a new way.

Advanced delivery systems promise to deliver an effective blended learning experience. These systems often lean towards delivering content via a smartphone, delivering it in short chunks, emphasising video, using gamification and having user-curated content (users sharing/ranking/liking learning content they found helpful). Note that a core LMS likely has some advanced delivery capabilities.

Niche Solutions

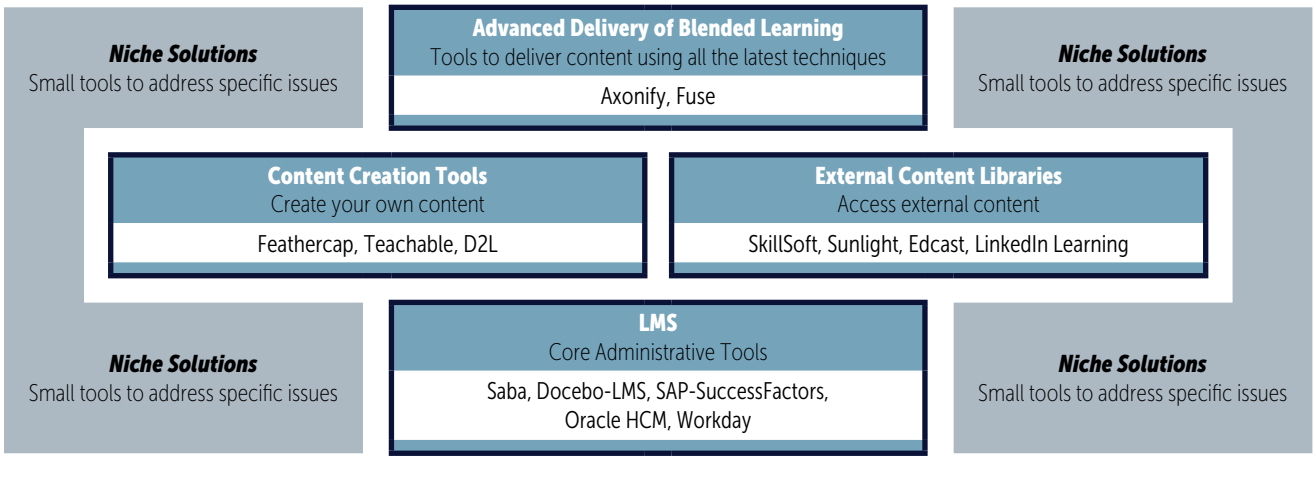
Purpose: Solve any number of specific problems training departments face.

There are hundreds (probably thousands) of niche solutions for particular issues. If you have a need, there is probably a tool designed to tackle it. An example of a niche solution is Watershed, which is a specialised tool for learning analytics. Another is Immersive Reader a tool built into various Microsoft Office products to improve a person's ability to read English.

FIGURE 2

The Overall Landscape of Learning Technology

Source: © CRF



WHAT'S CHANGED?

The biggest risk for professionals is not that they fail to learn something new but that they continue to believe something that is no longer true. Technology is changing learning in uncertain ways and professionals need to continually reflect on which changes matter in their organisation.

How we approach learning is enabled by technology

The learning technology we are used to (the LMS) made it easier to do learning the way it's always been done. The latest round of technology – in particular, External Content Libraries and Advanced Delivery of Blended learning – offer the possibility of doing learning differently. Fundamentally, changes in technology are moving learning from a 'push' activity (i.e. users are limited to what an internal training catalogue offers and to when training is scheduled) to a 'pull' approach, where users can take a much more real-time à la carte perspective of what they want to learn.

Implications: The plethora of online learning options creates the possibility that training departments will be circumvented by users. Unless training departments can add value to online learning (e.g. curating content), it's possible that an organisation might decide that most employees, most of the time, can get whatever training they need from External Content Libraries – thus obviating the need for a training department.

Micro-learning and targeted, just-in-time learning

Micro-learning refers to short learning modules, probably less than 15 minutes and possibly only two or three minutes. Micro-learning fits hand-in-glove with targeted, just-in-time learning where someone needs to know how to do something very specific, right now, such as 'how do I deliver bad news to an employee?', 'what is the expense code for mileage?', or 'how do I calculate depreciation on lorries in Kenya?'.

This mode of learning is similar to what apprentices would get from an attentive master. They learn just what little thing they need at the moment.

Implications: If a training department decides that this type of learning should supplant much of the existing approach, then training professionals will need to do quite different things. That's a big change management project, not just the addition of a new tool.

Prescriptive learning

Prescriptive learning refers to software that recommends a learning module or even specific actions based on personalised data. For example, a wellness learning programme might track someone's activity and recommend a learning module on cross-training or directly suggest it is time for a jog around the block. A 'flight risk' algorithm, which identifies if employees are likely to quit, might suggest a manager watch a video on 'stay interviews', then have those interviews with their 'at risk' employees.

Prescriptive learning takes the direction of learning out of the hands of training departments and individual employees and places it in the 'hands' of a data-fed algorithm. We know algorithms often outperform humans, so this new capability holds a great deal of promise. The fact that prescriptive learning is in its infancy shouldn't blind HR leaders to how important it could become and how quickly that could happen.

Implications: This may be training professionals' first contact with the idea that technology is better at identifying training needs than they are. It may shift the emphasis of the training function to identifying and delivering the best prescriptive learning systems.

The pivot to video

Video is becoming an increasingly important medium for learning, even when it might have been faster just to read something. In any 'future of learning' scenario, it's likely that video will play a big role.

Implications: Gone are the days of amateurish videos – users are accustomed to highly professionally produced content, so HR needs to 'up their game' or risk seeming old hat.

User-generated training

Traditionally, training was created by people considered experts. Now many self-declared experts are making YouTube videos on all kinds of topics. Many of these self-declared experts are in fact very knowledgeable and provide excellent information in an easy to understand format. There is an increasing opportunity for employees to generate training content rather than relying on a training department to create or buy content. For example, one of your machinists might provide more relevant insight on how to adjust a given piece of equipment than anything available from the training department or even the manufacturer.

Implications: The questions for HR are whether to encourage user-generated content and whether they need to curate it. There will be a tendency to feel that content needs to be highly regulated or curated; however, user-generated curation (good training gets a 'like' or 'upvote') may be more useful than anything the training department does.

The sheer know-how of training technology vendors

A traditional LMS vendor didn't need to know anything about learning; they just needed to understand how to track and automate administration in the training department. The new generation of training technology vendors ought to have deep insights into learning.

An Advanced Delivery of Blended Learning vendor like Axonify may get their value from understanding learning and may well know more about gamifying learning, the neuroscience of learning, and/or the appropriate way to deliver microlearning than an average training professional.

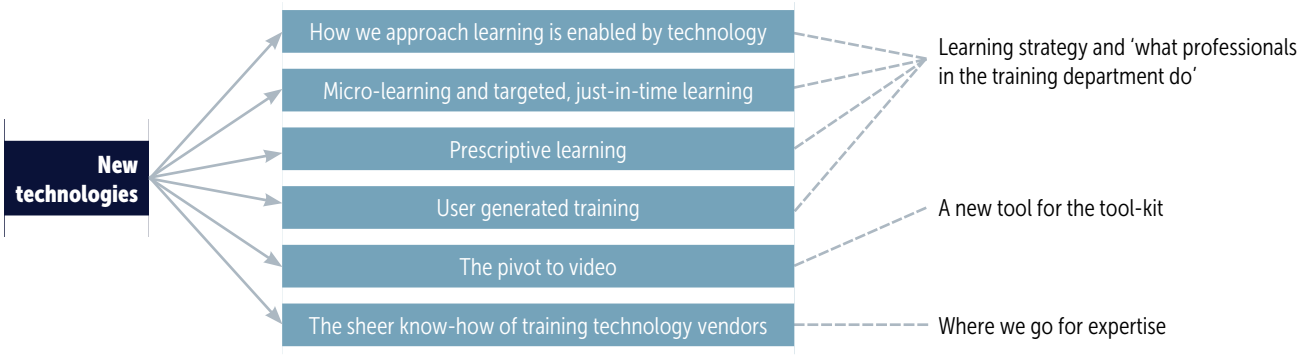
A company like Saba, which spans many of the categories of learning technology, has 32 million people using their software. The sheer scale of the user-base means that such vendors have the potential for unparalleled insight into what training works, when, and where. Even a company with 100,000 employees has nowhere near as much data as the big vendors have.

Implications: HR departments need to figure out when technology vendors are the best resource for expertise and when they are merely providers of a tool.

FIGURE 3

Making Sense of What's New in Learning Technology

Source: © CRF



Making sense of the changes

There are many ways one could parse the different elements of change; however, the dominant theme is that significant elements of learning strategy may change and with that what learning professionals do may also change. How training needs are assessed, how content is sourced, how learning is delivered – all these fundamentals may change. This goes far beyond the usual challenge of adopting new tools.

WHERE IS THE OPPORTUNITY?

HR leaders should consider if one or more of the following five strategies provide opportunities for their organisation.

Gaining administrative efficiencies

Even the first generation of learning technology (LMS) provided administrative efficiencies. However, as is usually the case newer technology is better – so upgrading the LMS, or at least consolidating onto a single platform, may be a good option. This is especially true if training compliance is important for tracking and reporting.

The administrative savings can be quite dramatic. A large pharmaceutical company required extensive auditing processes on it training functions. Prior to upgrading its LMS, locating a single training record requested by the audit team took 45 minutes. After upgrading (to Saba Cloud) the auditor was able to check everything from induction training right through to high-level training in 35 minutes.

For many, the opportunity may lie not so much in better technology as in more standardised processes and technology. In many organisations learning technology infrastructure has grown haphazardly, and so there are big gains to administrative efficiency simply through standardisation on a common platform.

Taking advantage of much cheaper learning content

Does it make sense to pay for learning? There is a serious question as to why we would pay a trainer to do, for example, presentation skills training when so much training is freely available online.

The company could potentially shift towards aiming that some percentage of training (e.g. 30%, 50%, 80%) comes from low-cost online sources. This is an opportunity to get much more bang for the buck.

LinkedIn Learning costs an individual a little over £220 per year for unlimited courses. That compares favourably to the cost of a magazine like Harvard Business Review (about £125 per year) not to mention the cost of providing instructor-led training.

Providing much more learning to 'deskless' workers

Now that learning can be easily delivered in short chunks, on-demand to a smartphone, it becomes much easier to provide training to workers who are not at a desk such as sales reps or shop assistants. A shop assistant has little downtime, but it certainly is possible to fit in five-minute learning breaks.

Vodafone used Fuse Universal to replace most of its classroom training with a Facebook-like app on mobile devices for the advisors in their stores. The approach includes blended learning (ensuring the remaining classroom learning is followed up with learning delivered by the Fuse app), micro-learning, videos, social learning so that employees can share insights with each other, and managerial assessment of retail staff behaviour to measure the effectiveness of training.

If deskless workers play a large role in the company, and if they have been underserved by the training function, focusing on delivering learning to this audience could have a big impact on the organisation's results.

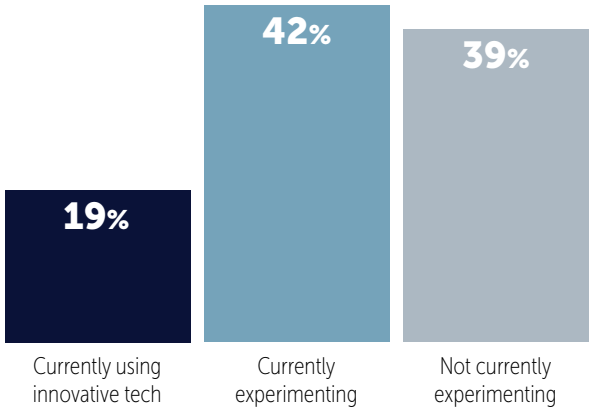
Adopting one or more new paradigms of learning

Technology creates the possibility of implementing some combination of:

- Employee-initiated learning (the onus is on the employee to get the learning they need)
- Just-in-time learning (emphasis is on short learning modules aimed at a highly specific need just when it's needed)
- Prescriptive learning (analytics tell employees what they need to learn and do)
- User-created learning (learning modules created by users not instructional designers)
- Advanced delivery of blended learning (technology to bring a whole suite of new tools to a learning programme, e.g. gamification, analytics, video, peer feedback).

FIGURE 4

To what extent are you experimenting with innovative HR technology *(e.g. chatbots, machine learning, gamification, advanced analytics) for Learning?*



Source: CRF Member Survey, 2018

Most organisations (about 60%) are using or experimenting with innovative technology in learning.

With so many new approaches available, an investment in understanding how to use these technology-enabled approaches to learning could be a big opportunity for organisations that compete based on knowledge. Organisations have the opportunity to overturn their whole model of how learning is delivered.

The manufacturing division of Merck & Co. wanted to improve their safety culture. They adopted a blended learning approach including a mobile technology (Axonify) to deliver micro-learning. Many employees voluntarily accessed the mobile learning several times a week because the new model of gamified, adaptive (i.e. what the learner sees varies depending on their needs) content was so engaging. The outcomes included a reduction in the recordable incident rate and lost time injury.

Swisscom Enterprise Customers is a 5000-employee unit within Swisscom Group. Patrick Veenhoff, their Head of Learning & Development, has created what he calls "the Airbnb of corporate learning, a social learning marketplace." Instead of employing trainers and creating courses, Veenhoff's team matches users with multiple sources of learning content (internal, external, peer-to-peer, one-to-many and so on). Like Airbnb, users choose what fits them, by accessing an online site that looks very much like Netflix. The site offers a wide range of content, much of which is produced by employees. Veenhoff's learning department does not provide training – it enables learning.

A learning environment rather than solving specific learning needs

Perhaps the future of learning is better seen as an environment that enables learning rather than one where the training department solves specific learning needs. Imagine a world of ongoing feedback, access to content libraries, social networks for sharing information, and mentoring networks. HR could frame its thinking as a suite of technologies that support an environment. Noonan and colleagues argue that – similar to the Swisscom example earlier – "In the future, learning within organisations will be more about content that is curated and contributed by individual learners, and it will do less content creation and invest a significantly greater percentage of their time in strategic activities that help to enable learning experiences that deliver results."

IBM is a good example of creating a learning environment, with a CEO-mandated requirement that employees learn for 40 hours per year so as to facilitate a strategic necessity for corporate change. The number of hours here is less important than the validation from the top that time spent learning was a required part of the job. To encourage this, technology was used that promoted self-learning, with learning snippets (e-learning, TED Talks, magazines, microlearning) being sent out based on topics employees showed interest in.

The new paradigm for the learning function is, therefore, to focus on creating a learning culture, removing barriers to learning, and providing access to resources rather than focusing on the creation and delivery of training courses.

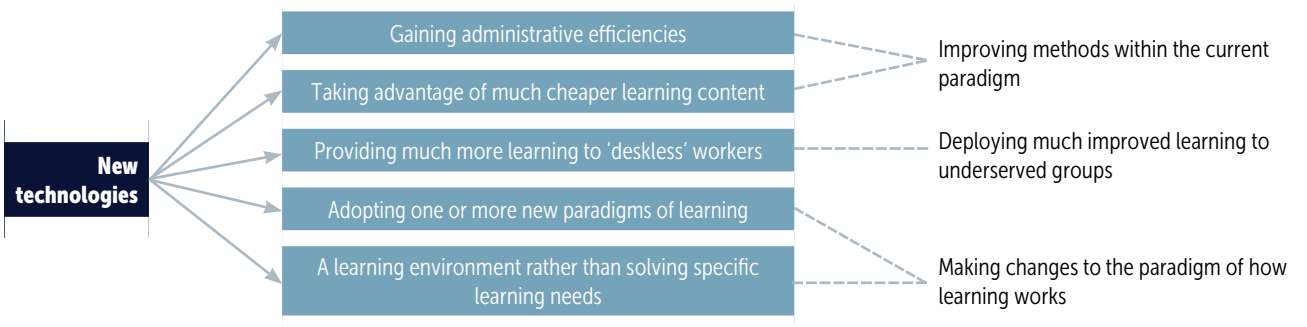
Making sense of the opportunities

We can categorise the opportunities into three buckets, as illustrated below. The first is simply using technology to make the current paradigm of training better; depending on how well things are working now this could be an important

FIGURE 5

Making Sense of the Opportunities in Learning Technology

Source: © CRF



source of quick wins. A somewhat more interesting category is the notion that maybe we can now serve the learning needs of underserved groups – in some cases, this could have a significant impact on the business. Finally, HR leaders need to consider if they ought to be exploring new paradigms of learning which may have a smaller payoff in the short run, but will be essential in the long run if the learning function is to remain relevant.

REALITIES THAT TEMPER AMBITION

The dreams of how technology can help us fly are inevitably weighed down by the baggage of reality. Here are several barriers HR leaders will need to contend with as they seek to seize the available opportunities.

The training function is locked into the old model

Everything about the training department – from how budgets are set, to how employees are rewarded, to how processes are designed, to skills and values – may be locked into the old model. An External Content Library or Advanced Delivery System could be the best solution but might not fit into the existing way things are done.

It's not just traditions within HR that lock in the old model. A Middle Eastern telco wanted self-driven learning, but employees (and their managers) were used to day-long training courses every 12 months. To them, self-driven learning meant they weren't getting training.

HR leaders need to figure out all the pieces that need to be changed if they wish to pursue a new model of training.

No one, not even the vendors, has much experience with the new models

The new models sound interesting, but in the absence of experience, it is a risk to pursue them. How do you get the best from External Content Libraries? No one knows for sure yet. One large insurer used a management training library from one of the top brands in learning, but analytics showed only 1% of viewers finished any given course – they needed to do something differently, but it's not clear exactly what that was. Similarly, MOOCs have typically had low completion rates (surveys suggest in the range of 4-15%). So while it's probably easy to get employees to watch a five-minute video, it may be a completely different matter if most training goes online.

HR leaders need to be cognizant of the risks and adopt a 'test and learn' approach that will help them navigate the unknown terrain.

Lack of clarity about who owns training could create conflict

If we start making lots of changes to training, then the issue of who owns training could come to the fore. Should employees be accountable for their own training? If a business wants to try out an Advanced Delivery of Blended Learning technology should they go ahead without any input from the training department? How comfortable is training replacing a learning technology vendor with a new one if certain stakeholders are attached to the old one?

The training department should be clear about where it needs to have tight control over learning programmes (e.g. anything to do with compliance, anything where the investment is high), where they need some control (e.g. where the systems need to talk to one another), and where business units, teams or individuals can proceed on their own (e.g. user-created content specific to that unit).

Making sense of the realities that temper ambition

There is potential for great change in how learning is delivered. The challenge is that the Learning function, vendors, and other departments may not be fully ready for it.

THE FUTURE

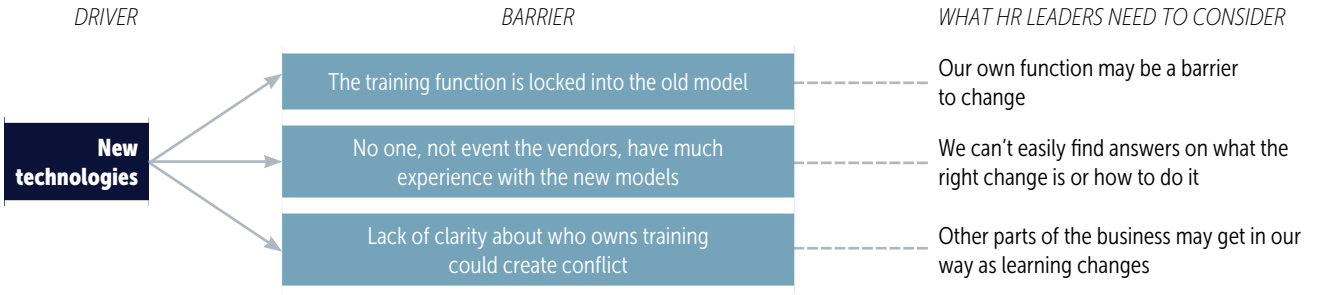
It is possible that in the future it will be so easy for employees to access learning resources on their own, and so easy for departments to manage their own compulsory programmes (e.g. ones related to compliance) that much of the traditional work of a training department will disappear.

In this new world, the Learning function would need to fill in just a small amount of training that for some reason employees or departments (supported by technology) couldn't do on their own. The role of the Learning function would be primarily focused on creating a learning culture and removing any barriers to learning. The Learning function might also focus much more heavily on enabling developmental assignments instead of thinking in terms of training programmes.

FIGURE 6

Mapping Barriers and Solutions

Source: © CRF



CONCLUSIONS

The fact that the first few generations of eLearning technology were unimpressive shouldn't blind HR leaders to how much this current generation of technologies is changing learning.

- People often turn to YouTube first to find out how to do something. This underlines the importance of corporate learning solutions being accessible, easy and on-demand.
- New learning technologies go far beyond just making life easier for the training department; they transform what the department will do from content generation to curation.
- Since learning technology is transforming how the training department works, many organisational barriers will need to be overcome in order to seize the opportunities new technology promises.
- The learning technology landscape is complicated and difficult to understand, even when you try to stay up-to-date.

RECOMMENDATIONS

1. Standardise on a core LMS. Get the efficiencies from one solid core system; ensure the essentials (e.g. compliance training) are handled well.
2. Experiment with various Advanced Delivery technologies. These new technology-enabled approaches to learning are the future. The Learning function should eagerly experiment to determine what works.
3. Experiment with various External Content libraries. Free or low-cost external training programmes provide an excellent opportunity to get the most bang from the training budget. Do these libraries need active curation by the training function? How do users like them? What are the shortcomings? The only way to figure this out is to start experimenting.
4. Seek out niche solutions whenever needs arise. For any issue the Learning function faces there is probably a software vendor offering a solution. It should be second nature for learning professionals to ask, 'is there an app for that?' whenever they come across problems. This will build their awareness of the immense breadth of tools now available.