

# The New Learning and Technology Architecture

Ten trends from  
leading companies



Learning Insights Report 2012





# E-learning is dead, long live learning!

If there had ever been a master plan for e-learning, some 30 years or so ago, long before the term 'e-learning' had been coined, it would have included an end game in which learning technologies ceased to be a focal point of attention and had been seamlessly integrated into the everyday business of learning at work. There never was a master plan of course and even if there had been it would never have forecast such a long slog to the finishing line. We're still not there, but this report shows that the end is in sight. E-learning will soon be dead and we'll be able to concentrate instead on people and performance.

This is not a cause for mourning or regret. Technology has already made a significant albeit patchy impact on workplace learning and we should be pleased to have been among the pioneers. But whatever we have achieved so far will pale into comparison with what is to come. Learning technologies will transform workplace learning (and all other forms of learning), particularly in terms of accessibility, flexibility and cost efficiencies. But, in the end, a medium is only a means to an end, a channel for delivery. What really matters is how we use that medium. And in this respect, we are still working things out.

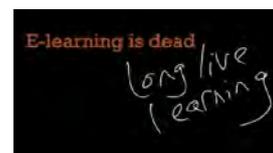
As this report shows, new architectures are emerging for workplace learning, looking way beyond formal courses to include a wide range of informal approaches, on-demand resources and on-the-job learning. In my book *The New Learning Architect* I described how a new breed of learning strategists would design environments for learning, in the same way an architect for buildings designs environments for living. These people would not be seduced by technology, but would be fully mindful of the opportunities they provide, just as an architect for buildings must be alert to developments in materials, electronics, renewable technologies and so on. The new learning architect is above all a professional, able to realise the visions of their clients through the effective applications of methods and media.

Employers are looking for a learning strategy that is aligned to their business goals, is economical, scalable, flexible, engaging and, above all, powerful. They are aware that learning technologies will be an integral part of this strategy, but are looking way beyond the highly structured, standalone, self-study tutorial. In our lives outside work, we've become accustomed to near-instant access to all sorts of media to provide us with the information we need, when we want it. Through our social networks we know we can access expertise and collaborate in solving problems whenever we want. And we can achieve all these things on our desktops, our laptops, smartphones and tablets. Unsurprisingly, we expect the same at work. Soon we will be demanding it.

The financial crisis has been painful but it may have helped learning and development. It has forced us from the cosy niches that we have occupied for too many years. We are becoming more accountable, more innovative and more connected to the businesses in which we work. We are gaining respect for delivering services that make a difference. Our clients don't care whether or not we use technology, they just care about outcomes.

E-learning is dead. Long live learning.

Clive Shepherd



## Contents

Background and methodology	3
Executive summary	3
1. Improving performance still matters the most	6
2. Supporting informal learning	8
3. Don't believe the hype: formal courses are not dead, just different	9
4. Organisations need multi-device learning solutions	11
5. E-learning content and design is changing	13
6. Experiential learning is an important part of the learning architecture	15
7. Line managers and coaches have a critical role	16
8. Assessment is changing	16
9. Seamless learner journeys	17
10. Evaluation and follow-up matters	18
2013: Your e-learning to-do list	19
List of participating organisations	18

## Appendix

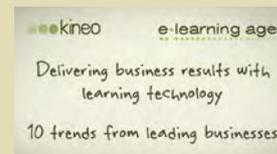
The new learning and technology architecture	20
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## Background and methodology

*E.learning age* and Kineo are two organisations that are passionately interested in developments in learning and technology. In our respective ways we aim to lead and inform the market through our research and to share our insights. Early in 2012 we decided to work together to produce an annual e-learning insights report.

As part of this research we undertook interviews and meetings with over 30 leading L&D figures across a wide variety of organisations. In the structured interviews and meetings we explored the trends in learning technologies, the challenges facing L&D departments and how they were responding to these issues. We were keen to focus on the practical steps that L&D departments are taking and what is working on the ground. We would like to thank all those who participated in this project; the names of the organisations which took part are noted at the end of the report. We would also like to thank Clive Shepherd, a regular and respected columnist with *e.learning age*, for his introduction and permission to use his model from his book *The New Learning Architect* (see Appendix, page 20). This report highlights the key insights from this research.

[www.kineo.com](http://www.kineo.com)     [www.elearningage.co.uk](http://www.elearningage.co.uk)



## Executive summary

### Delivering business results with learning technology – 10 insights from leading organisations

Our research appears to show that L&D departments are facing many challenges including business pressures, technology changes and social changes. These pressures have not led to a single dramatic change in the way L&D departments operate but to a series of smaller, incremental changes and adjustments. These changes, taken collectively, are reshaping the landscape and what is emerging is a distinctive learning and technology strategy or architecture.

What is also emerging is an increasing recognition of the value that learning technology can deliver to businesses and as a consequence an increased sense of confidence among learning technology professionals despite – or perhaps because of – economic challenges.

The key insights from our interviews are:

#### 1. Focus on improving performance still matters the most

The good news is that while many budgets are being cut, businesses recognise the value learning technology can play in improving performance. Additional budget is being allocated for e-learning and technology-based projects as they are demonstrating value to the business. Learning is being integrated into the tasks that people perform, on a just in time basis. There is increasing investment in the development of learning on demand and as performance support. This is an area where mobile learning can play a key role.

*“What matters is helping people do their job better, providing what they need, when they need it.”*

### 2. Supporting informal learning

L&D is playing a key role in supporting informal learning through curating content, including disaggregating and delivering resources. L&D departments are helping learners find what they need when they need it by providing resources rather than courses in a format that is easily browsed or searched. People are time-poor and want the freedom to decide what they need. Resources to support informal learning tend to be short, quickly produced, have a short shelf life and take multiple formats from videos to checklists. Production quality is less important than relevance. User-generated content and social learning are still a small part of informal learning.

*“Good enough content is good enough.”*

### 3. Formal courses are not dead, just different

Despite much talk and genuine interest in exploring alternative methods, the development and delivery of formal courses is still an important task for L&D departments. There is a key requirement for structured courses with assessments in areas such as compliance. These courses are increasingly blended with a greater use of learning technology such as self-paced e-learning courses, webinars and technology in the classroom. Webinar use is growing substantially.

*“Designing formal courses, albeit blended, is still the key challenge for L&D departments.”*

### 4. Organisations need multi-device learning solutions

Online learning used to mean delivery to desktops or laptops. Now increasingly delivery needs to be to multiple devices including tablets and smartphones. It is not as simple as mobile versus desktop. The ideal solution is multi-device which covers platform and content. For content this means more HTML-responsive designs and less use of Flash.

*“We need a single version that works on all devices.”*

### 5. E-learning design is changing

This is partly about designing for multiple devices and partly about designing performance support objects. However, even on desktops e-learning is shorter, more resource/task-based, less linear, more creative and less on brand. As a general rule people want bite-size, user-led e-learning for a YouTube generation. This will lead to a new grammar for learning design as we move beyond desktop-based courses.

*“We want interfaces that reflect consumer devices.”*

### 6. Experiential learning is an important part of the learning architecture

Experiential learning comes through assignments, delegation and role changes supported by coaching and feedback. For many organisations learning on the job is fundamental and learning is designed to support this through workbooks, performance support and coaching.

*“Not enough attention is given to supporting learning through experiential learning.”*

### 7. Line managers and coaches have a critical role

With the growth in informal learning, experiential learning and performance support, coaching is growing in importance. Frequently line managers play a critical role as coaches.

*“The line manager has a key role to play in developing staff.”*

#### 8. Assessment is changing

While still critical in many formal learning courses, there is less need for assessment in areas such as informal learning and performance support. Where assessment is required it is often built in as part of the learning and as on the job assessments. New methods are needed to address the changing requirements.

*“We need to assess learning less; what matters is how well staff do the job. People may pass tests but it doesn’t change behaviour in the workplace.”*

#### 9. Learner journeys need to become seamless

The new architecture needs to give learners fast access to learning. This is being done in a number of ways such as learning portals accessed over the internet from any device. Learning resources are increasingly accessed through role-based portals, and the ability to search peer-rated content. Portals are also personalised and provide content based on role or experience.

#### 10. Evaluation and follow-up matters

Budget is available where you can prove value. Successful learning departments are preparing a business case for projects and then evaluating the impact on performance. They are also ensuring learning is followed up with reminders and transferred to the workplace. The good news is that organisations increasingly recognise the value that learning technology can deliver and this is increasing the reputation and influence of learning departments.

In summary, learning technology professionals are confident and optimistic. As one learning director commented: “There has never been a better time for learning technology to demonstrate the value it can deliver to businesses.”

“ There has never been a better time for learning technology to demonstrate the value it can deliver to businesses. ”



## 1. Improving performance still matters the most

The good news is that while many budgets are being cut, businesses recognise the value learning technology can play in improving performance. Additional budget is being allocated for projects that can demonstrate value to the business.

In a time of austerity there is a pressure across businesses to do more for less. Learning and development budgets are under continued pressure. In some sectors businesses are radically reshaping and learning budgets are being reduced significantly. In the case of one business we interviewed, the central learning team was being reduced by 60%. However, more broadly we found that while there was pressure on learning budgets the balance within budgets was therefore shifting towards learning technology-led solutions because of the lower cost of delivery and their ability to impact performance.

The interviews revealed a growing recognition by businesses of the role that learning, and learning technology in particular, could play in improving performance. A number of people were very buoyant and felt that despite the pressures there was a growing interest in the way learning technology-based solutions could help deliver business objectives. Most interviewees felt that as long as they could make a clear business case that demonstrated clear benefits they could secure money for projects.

These developments are having the effect of squeezing out learning which is not clearly focused on improving business performance and having tangible business benefits. This is linked to being able to demonstrate outcomes, which we cover in more detail in the section on evaluation (see page 18).

One L&D department interviewee said: “We don’t provide any theoretical content any longer – if it is not directly related to the business it doesn’t get budget.”

Another said: “The CEO and other executives do not care about learning delivery and how it is going to happen, but how it is going to impact the business.”

And a third pointed out: “This is HR’s time – we can make a difference. We understand the business plan and can demonstrate how we will drive the business to achieve its goal.”

“ “ The CEO and other executives do not care about learning delivery and how it is going to happen, but how it is going to impact the business. ” ”

## Integrating learning and performance support

L&D departments are integrating learning into tasks to support just in time/just in case access. What matters is supporting staff to do their jobs better in the workplace, thus there is increasing investment in the development of learning on demand and performance support.

There is a growing recognition that an important objective for the L&D team is ensuring staff perform well in their roles. Formal learning has a part to play in this as it can build base knowledge and skills but it is well established that there is a key requirement to support staff to do their jobs better outside the formal learning context. In particular there is a need to ensure staff have access to learning and resources on a just in time basis.

Learning and development departments appear to be increasingly confident in designing and delivering performance solutions or ensuring learning can be used in a just in time manner. New tools, technologies and design approaches are needed to enable this.

The types of developments which were referred to included:

- Creating resources rather than courses, which could be used in a non-linear, standalone, just in time basis;
- Ensuring delivery on multiple devices so resources are accessible when required;
- Supporting and encouraging experts in the business to create and share;
- Targeted learning to push and recommend content based on job role/ location. This is still embryonic but there was a perceived opportunity for ratings and Amazon-style algorithms to push the right content to the right people.

Common formats appear to be emerging for technology-based performance support resources such as checklists, infographics, how-to videos, PDFs and simple animations.

From an L&D perspective there is still a need to design these resources and have a threshold of quality, but they are quicker and cheaper to produce than with more formal methods.

One issue which emerges from these developments is the role of L&D teams and the role of experts in the business around performance support. In some businesses it was felt this responsibility really resided with the business area concerned. However, some were sceptical about whether experts could or would really engage with authoring tools and learning design, hence the need to make resources very easy to produce and deliver to respond to needs

Similarly questions were raised about where resources should reside in the corporate infrastructure and whether such resources should sit outside the learning management system (LMS) as there are fewer requirements for tracking. Others felt strongly that content should sit in the LMS as it made it easier to target and personalise content. It was felt by many that e-learning resources themselves should be searchable from across corporate intranets and returned in results. Everyone agreed departments have to find ways to reduce the number of clicks to reach the learning.

“ What matters is helping people do their job better, providing what they need, when they need it. ”

## 2. Supporting informal learning

L&D is playing a key role in supporting informal learning through the curation of content including the disaggregation of resources. L&D departments are helping learners find what they need when they need it. This involves providing resources rather than courses in a format that is easily browsed or searched, and playing a filtering/editorial role to manage quality. Resources to support informal learning tend to be short, quickly produced, have a short shelf life, and take multiple formats from videos to checklists. User-generated content and social learning are still a small part of informal learning. People are time-poor and want the freedom to decide what they need. The lack of time – and also the lack of incentive and reward – are limiting factors on social learning and user-generated content in commercial organisations.

The 70:20:10 informal learning model was commonly quoted in the interviews. In essence the model states:

- About 70% of learning comes from challenging assignments and on-the-job experiences and practice;
- About 20% of learning comes through other people: relationships, networks and feedback;
- About 10% of learning is achieved by formal training processes: e-learning, face-to-face courses and events.

The role of L&D departments beyond formal learning appears to have grown in importance and necessity. While it has always been present there appears to be a renewed focus on the role departments can and should play in supporting informal learning, recognising that 90% of learning has been taking place outside their traditional remit. The role of L&D as a content curator was mentioned frequently. There was also a strong view that learning and development departments should actively support informal learning. This support takes a number of forms including:

- Disaggregating resources from courses to support informal learning and just in time learning;
- Helping learners build relationships and learn from each other through social learning initiatives and forums;
- Supporting learners to create and share experiences and content; and also to rate content so that good content is easily identified;
- Developing contexts and learning paths for staff in particular roles to help them learn and improve outside the context of formal learning;
- Supporting the development of communities of practice;
- Making content available on multiple devices, so it is accessible where staff need it on a just in time basis.

### Social learning: getting there but not yet

While there are some good examples of social learning and it can add real value, many interviewees felt it is not really happening on the ground. In the experience of many departments people are just too busy or aren't rewarded for sharing. There is agreement on the potential for communities, social bookmarking and sharing but the reality is the development of this culture will take a lot of time and

effort. The one success area, especially with technicians, appears to be user-generated video which is shared. Another embryonic development is mass online workshops such as a Twitter workshop. One organisation had 12,000 participate in such an event. One company uses Yammer effectively internally. Yammer is effectively like an internal Twitter that allows people to share messages and links and form into groups.

Interviewees were keen to ensure that L&D teams didn't try to simply structure and make informal learning formal. Some departments felt challenged by informal learning, social learning and knowledge management which they saw as very different territory to creating and commissioning courses.

There was a strong view that in the context of informal learning content there was not a requirement for polished content as there might be in a more formal e-learning course. This was in part because the resource is something which stands alone, there is not the same need to build context, to scaffold understanding and to maintain engagement over a longer period. There are occasions where speed is often crucial and perfection less important; often it is about getting information and knowledge to people quickly.

“ Good enough content is good enough ”

### 3. Don't believe the hype:

#### formal courses are not dead, just different

Despite the growing role of L&D departments in supporting informal learning and performance, the development and delivery of formal courses is still one of the most important tasks that L&D departments undertake. There remains a key requirement for structured courses with assessments, particularly in areas such as compliance.

Some of the interviewees felt the 70:20:10 model tends to underplay the value of formal courses. It is argued by some that the 10% of formal training has an amplifier effect in that it often provides the basic building blocks on which other learning is built. Thus while informal learning is important, so too is formal learning and this is where L&D departments have a critical role. Others felt that a move towards informal learning and resources not courses was actually a move in the wrong direction. They argued that L&D departments should design not courses but programmes of learning which provide a more holistic learning experience over a period of time to embed the learning. We pick up on this in the section on experiential learning (see page 15).

Despite the genuine interest in future developments, and the hype that too often dominates discussions (and vendors have to acknowledge their part in this), there was still a core acceptance that designing, commissioning and delivering formal courses remains one of the key L&D functions, if not the key one. The nature of these formal learning courses, though, has changed significantly

in recent years. Traditionally these formal courses were primarily classroom-based and these are now much more sophisticated blended courses or programmes. The formal courses that are being designed and delivered make a much greater use of learning technology such as self-paced e-learning courses, webinars and technology in the classroom.

The blended approach used by learning and development departments has a number of technology-based elements. The first is self-paced e-learning content. This is often used both before and after classroom sessions. The pre-classroom e-learning is designed to introduce subjects and to get everyone up to certain level of knowledge and understanding prior to joining a classroom session. The post-classroom e-learning is used for reinforcement, to practise skills and as support after the event. While this may sound like a basic linear blend, it is still the most common one in use.

The second technology-based element is webinars. Most businesses reported an increase in webinar use, some reported a very significant increase. Webinars are used in a number of ways but increasingly as part of a formal course blend. There is a general acceptance of webinar technology especially in areas where staff work remotely. They provide a synchronous alternative to classroom-based delivery which is significantly lower cost and reduces travel time.

Webinars fit the formal learning model because if you get a webinar into a diary people typically will make time for it. This was seen as one of the advantages. One person pointed out that people are driven by their email and their diaries. Thus getting a webinar booked into a diary makes it more likely to happen than other non-diary activities. Quite a number of organisations also record their webinars and make them available after the event.

The nature of classroom delivery is also changing with greater use of technology in the classroom such as whiteboards, voting and shared tablets/laptops.

The emergence of webinars as a key blend element leads to new design requirements. Designing and facilitating a webinar calls on different skills and we have seen organisations look to grow capabilities in this area.

Another aspect of formal learning courses which emerged was online tutor and community support. It appears still to be a relatively small part of the formal course blend but it is growing partly as the learning platforms are enabled to support these type of activities.

What came across strongly from the interviews was that the prime focus for most learning and development departments was still formal courses with these or other elements. While it's valuable to explore the comparatively new territories of social, informal and mobile learning, it's important not to overlook the building block skills required to design and deliver these courses effectively.

“ Designing formal courses, albeit blended, is still the key challenge for L&D departments. ”

## 4. Organisations need multi-device learning solutions

Online learning used to mean delivery to desktops or laptops. Now increasingly delivery needs to be to multiple devices including tablets and smartphones. It is not as simple as mobile versus desktop. Nor do organisations want to make it as complex as producing different versions for each device. The ideal solution it seems is a multi-device solution which covers platform and content. For content this means more HTML-responsive designs and less use of Flash.

The interviews revealed that the majority of businesses are designing solutions primarily for delivery to desktops and laptops. However, there was a recognition that we live in a multi-device world. The three typical types of device are:

- Computers (desktops and laptops);
- Tablets (iPads, Galaxy Notes, smaller tablets);
- Smartphones (Apple, Android and Blackberry).

While it is still early days for most companies, there is a growing pressure to develop e-learning content that works on multiple devices. This is driven by the growing use of tablets and smartphones both in the workplace and outside it. In the workplace more senior staff, sales staff and field staff are using devices such as iPads and smartphones, and expect to access learning via these devices. Also the move to Bring Your Own Devices (BYOD) in some companies creates an expectation that content will work on all devices that employees might care to use.

“ L&D needs to use more common web tools and standard web technologies. ”

In the early days of smartphones and iPads, the fact they would not support Flash created a dilemma for the e-learning world, as most content was Flash-based. This led to a lot of hype about the need for separate mobile learning strategies and mobile solutions. This led a few companies to develop separate mobile strategies, platforms and different content versions such as Flash versions, HTML versions and different native apps for different devices. This has created difficulties for L&D departments which were first movers in developing these separate strategies, primarily because:

- It is more expensive to develop multiple versions;
- It is more expensive and complex to distribute, update and track multiple versions.

One of the reasons for considering a separate mobile strategy was the limitation of HTML compared to Flash in developing engaging e-learning. That's changed. There was recognition that the web world has moved on and is finding answers to many of these challenges faced by L&D departments. Developments in HTML5 and more modern browsers have led to a more sophisticated approach to multi-device delivery on the web. This new approach means you can develop a single

version of content to play on all devices, which can deliver higher-end design.

Responsive web design enables one version of content to respond intelligently to screen size so that it not only reformats for different devices but also displays different types of content on the different devices, as appropriate. This responsive approach with HTML5 also means content is accessible and more searchable. The e-learning world is catching up quickly with the development of responsive e-learning design, so in future L&D departments can deliver an e-learning module that works everywhere.

“ “ We need a single version that works on all devices. ” ”

So is Flash dead and are apps dying? Maybe mobile learning's joining them...

Increasingly in interviews we heard a central drive to move away from Flash in order to futureproof content for mobile devices. This is particularly true in US companies. So is Flash dead? This may be hype running ahead of itself, but perception quickly becomes reality, and if enough L&D departments say no to Flash, then its days as the go-to e-learning tool are numbered.

While we're going through the death notices, several interviewees commented on the app bubble being about to burst. The early days of mobile strategy made the idea of creating native apps for mobile learning sound alluring and common sense, and the market was flooded with tools. However, the distribution and update challenges seem to make them unsuitable for learning and performance support. There's a role for apps, if you're creating games or a very specific high-end mobile solution. But for most learning requirements, the additional functionality an app may bring is offset by the extra costs, updating, tracking and distribution efforts. The future seems to be towards one single version led by web trends towards responsive HTML design. It's likely that the term 'mobile learning'

itself will disappear too since nearly all devices can be made mobile (a laptop on a train is mobile), and a lot of 'mobile' device use of smartphone and tablets is done on the couch – about as immobile as you can get. Just as we've all been keen to lose the 'e' from e-learning for some time, there's a feeling that the 'm' can go with it,



## 5. E-learning content and design is changing

This is partly about designing for multiple devices and partly about designing performance support objects. However, even on desktops e-learning is shorter, more resource-based, more task-based, less linear, more creative and less on brand. As a general rule people want bite-size, user-led e-learning for a YouTube generation, not buried in a lengthy course.

While most e-learning content remains self-paced within a course format, there has been a desire to give more control to the learner, and strip the e-learning for parts to provide easier access to the content within it. A number of interviewees referred to a more mature adult-to-adult approach which gives learners control over what content they access and in what order. There was a desire to move away from linear courses and to structure e-learning in way which enables learners to dip into smaller, more self-contained content. You could use iTunes or Spotify as an analogy – let people get to the song they want without buying the whole album.

From the interviews also came a clear desire for shorter e-learning modules. A common issue raised was that people are time-poor. They have to fit their learning around busy jobs. Some people cited TED videos as a good example of short 15-minute pieces of content, others however, felt even TED videos could be a little long. The design approaches are being influenced by a gradual shift to HTML content and away from Flash in order to provide more multi-device flexibility.

### Learning from the mad men: a new grammar for learning design

In terms of the e-learning design itself, for more formal modules it is felt important that it has impact and uses techniques from the world of advertising to grab attention. There was a desire for more innovative and creative approaches. There was definitely a desire to move away from more corporately branded, worthy but dull e-learning and to inject some humour into the style and tone of the e-learning.

The need to keep up with changes in the way content is designed for the internet across all devices came up a lot. The impact of consumer web design is influencing the design of e-learning content on the web. This includes the feel of the design, the interface, scrolling navigation and interaction types. The inability to synchronise audio and animation in HTML had also led some to develop more animated approaches, in essence a narrated movie where, say, an image builds on screen as it is narrated. These movies are then dropped into HTML-based e-learning modules or used as standalone elements. All of these techniques move e-learning away from what has become a screen-based, back/next, boxed-in approach and point towards a new grammar for learning design, being resourceful and learning from what works on the web.

The higher-end e-learning was seen by some as effectively multimedia and there was a feeling that at this higher end L&D departments should be helping to create excellent experiences that people learn from. There has been a danger that self-paced e-learning content has been considered a second-rate experience and a cheap substitute for the classroom. This negative view of previous e-learning and the pejorative connotations has led some to drop the term e-learning, though this was not consistent across organisations. There was, though, a strong feeling that at the higher end

departments should be building excellent e-learning experiences that complement the overall learning blend.

Many departments felt that at this higher end games and scenarios have a role. However, there was a concern they can be very expensive and there has to be a real need for this approach, with a strong business case to prove the value. The pace of change in some areas meant that a lot of content has a short life span and is disposable. Thus the cost of development has to be kept low, which has led to game-like approaches rather than sophisticated immersive simulations and true games. There were good examples of the use of game-like elements in e-learning including elements such as timers, scores and league tables to engage and motivate learners. There were also questions about the cost-effectiveness of complex branching scenarios as they are hard to script and some questioned whether they delivered the extra learning and business value to justify the cost. Again it was felt they need to be considered carefully against the business requirement. Others also questioned the evidence behind various instructional design approaches and needing to be clear where and how instructional design adds value.

One medium which is meeting this need for quick, low-cost and disposable content is short videos. The emphasis is on good stories and narrative, which are seen as more important than high-end production values. The video can be shot on camera phones as it is not about the wow but the quality of the content. This seems to be an area where user-generated content can break through following the YouTube model. One interviewee highlighted that the help desk was creating great how-to videos about its products that its customers were rating highly – the same model can apply for internal performance support.

There appears to be an increasing sophistication around e-learning content approaches rather than a one-size-fits-all model. For many this means a tiered cost/quality model as follows:

1. High-end bespoke design which needs professional development. These typically have strategic value and/or impact the bottom line significantly and include higher-end simulations, bespoke designs and rich media content.
2. Midrange content, often based on a design pattern or set of templates and often built with authoring tools. It is largely handled in-house or offshore following a structure, and typically takes the form of knowledge or procedural modules.
3. Lower-end user-generated content, developed very quickly – e.g. simple subject matter expert (SME) how-to videos, or recorded webinars with just PowerPoint and voiceover.

Increasingly organisations are forming models along these lines and communicating them internally and externally with examples along the cost/quality continuum. This leads to more mature discussions with vendors and partners about the appropriate solution for their needs.

“ “ We want interfaces that reflect consumer devices. ” ”

The real impact on e-learning design going forward is likely to be the desire for single versions of content that work on all devices through intelligent responsiveness, as outlined above. This will mean a reduction in content built in Flash and an increase in HTML5-based e-learning content. This multi-device environment will also support user-generated content forms such as video.

## 6. Experiential learning is an important part of the learning architecture

We explored through the interviews the role of experiential learning or on the job learning. This can be extended more formally through assignments, delegation and role changes supported by coaching and feedback.

The 70:20:10 model is predicated on experiential learning on the job. This was very much recognised by L&D departments, who felt they had a role to encourage, promote and support experiential learning. Some went further; one said their guiding principle is that people learn better by doing and this influences their experiential-based approach to their learning architecture. Games and high-end simulations that replicate and accelerate experience can play a part in this – though, as mentioned above, their relatively high cost usually means a strong demonstration of value is required.

This L&D department saw its role not as delivering courses but delivering programmes of learning. A programme is a more holistic approach which provides a person with a learning experience over a period of time (involving formal content, coaching, project-based work, feedback, self-paced resources) so that the learning is really embedded. The department felt that the move from courses to resources was going in the wrong direction and the focus should be on moving from courses to longer-term programmes of learning.

A number of departments referred to the need to help learners build portfolios of evidence from on the job learning and gain more formal recognition, often through accreditation of their learning.

For quite a number of businesses it is clear that on the job training is really important. Some felt that the best learning approach is people learning how to do the job while actually doing the job. This means providing support at the point of need using technology, managers and structured support such as workbooks to complete tasks with learning and reflection.

The role of line manager was identified as critical in supporting all aspects of learning but particularly on the job learning. Line managers have a role in identifying suitable projects, secondments, delegating, giving feedback, guidance on learning and encouraging reflection. Despite

“ Not enough attention is given to supporting learning through experiential learning. ”

identifying the importance of line managers many of the interviewees felt they had not done enough to develop the line managers themselves and to equip them to do more in this area. Supporting the line manager to be a great role model and advocate of experiential learning seems fundamental to the success of at least 70% of learning. See more on this below.

## 7. Line managers and coaches have a critical role

With the growth in informal learning, experiential learning and performance support, coaching is growing in importance. Frequently line managers play a critical role as coaches.

There seemed to be a general acceptance that some of the training and learning responsibility is moving from the learning and HR department to managers and learners themselves. Managers are being evaluated on their ability to grow and develop their teams.

Nearly all interviewees felt that line managers had a key role to play in L&D although in some businesses the problem is that this is not always communicated to line managers.

One interviewee said: “The line manager has a key role to play in developing staff.”

Another L&D manager put it more bluntly: “Today managers are required today to train their employees; it is part of their responsibilities.”

Relatively little thought seems to be given by L&D teams as to how to best support the line managers and coaches, to make them aware of their importance and responsibility in enabling learning. This is particularly true for technology-enabled learning, which in many organisations is still seen as less legitimate than more traditional methods.

## 8. Assessment is changing

### Moving beyond the multiple-choice question

While still critical in many formal learning courses, there is less need for assessment in areas such as informal learning and performance support. Where assessment is required it is often built in as part of the learning, typically as a formal assessment at the end of an e-learning module.

There was a general feeling that outside of the context of formal courses and compliance, it is less important to assess learning. In areas such as informal learning the assessments are often short and mainly designed for the learners themselves, so they can check their understanding and decide what they need to learn.

There appear to be more diagnostic-style assessments to enable learners to prove competence and make for a more efficient and personalised experience. For example, if a learner passes the test or rates themselves according to interest, relevance or confidence, they can skip the e-learning or appropriate learning or be directed towards areas of interest or need. This has been popular in some organisations and made a huge saving in time.

This approach, which starts with a focus on assessment and then provides tailored content, is seen by some to be a more mature approach. The assessment can take the form of self-assessment

asking people to be honest about where they are and testing their level of confidence. The big message was that staff are time-poor and we don't want to sheep-dip them through training they don't need. Few organisations have completely joined up their assessment and learning strategies.

Along with this, there's an increasing resistance to the importance of full-blown assessments, especially the weak form multiple choice quizzes (MCQ), which rarely demonstrate more than short-term memory skills. The movement towards evidence-based assessment and Open Badges has gained ground in education, and will increasingly influence workplace attitudes to assessment.

“ “ We need to assess learning less; what matters is how well staff do the job. People may pass tests but it doesn't change behaviour in the workplace. ” ”

## 9. Seamless learner journeys

The new technology architecture needs to provide learners with fast access to learning where and when they want it. This is being done in a number of ways such as learning portals accessed over the internet from any device. Learning resources are increasingly accessed through role-based portals, and the ability to search through peer-rated content.

There was a general desire as noted earlier to reduce the clicks to learning, and to deliver relevant content quickly (see integrating learning and performance support, page 7). There were some embryonic signs of people exploring machine-based learning, algorithms and recommendation engines to really target the learning people need. Whether through such technology or simply a focused portal there is a desire to provide personalised content based on role or experience.

The integration of learning with performance support and the growth of informal learning are raising issues about the technical architecture and the relationship between the intranet, portals, performance support systems and the LMS. Similarly there are questions about how social learning is supported by a technology platform and whether this is provided through an LMS or wider company social platforms. A number of companies were having success with private groups on existing social platforms such as LinkedIn.

One of the key learner journeys is onboarding or induction. There was a feeling among companies recruiting large numbers of people that induction has to get better and many now have

pre-joining online induction materials to start the journey before people actually join. There is also a growing adoption of flexible working and home working which adds to the need to support these staff using technology-based solutions which can be accessed outside of the office.

All of these factors have led to significant growth in the use of Software as a Service (SaaS) solutions rather than solutions that sit inside the firewall

As one person put it: “We should be aiming for a Netflix-style experience for learning. I move from laptop to iPhone to iPad – it knows where I left off, and I pick up from there.”

## 10. Evaluation and follow-up matters

The clear focus from the interviews was a focus on improving business performance. Budget appears to be available where you can prove value to the business. Successful learning departments are preparing a business case for projects and then evaluating the impact on performance. They are also ensuring learning is followed up with reminders and being transferred to the workplace.

There is a strong feeling amongst some interviewees that everything needs to be evaluated, whether it is relevant and has direct impact to the business. The L&D department has to be able to prove its value in the same way as any other investments.

The good news is that organisations increasingly recognise the value that learning technology can deliver and is delivering. The reputation and influence of learning departments is growing and being backed by investment.

The majority of learning technology professionals we interviewed felt confident about the future and meeting the challenges ahead.

## List of participating organisations

We're extremely grateful to the following organisations for participating in the interviews and sounding sessions that led to this report.

- Aviva
- BAE Systems
- Barclays
- Barclays Capital
- BAT
- BBC
- BP
- British Airways
- British Army
- BT
- BUPA
- Cable & Wireless
- Capita
- City & Guilds
- Civil Service Learning
- Compass
- Crown Prosecution Service
- Deloitte
- Getinge
- Kohl's
- KPMG
- Lloyd's Register
- Lloyds TSB
- McDonald's UK
- Ministry of Justice
- NSA Social Care
- Poalim
- PricewaterhouseCoopers
- Royal College of Nurses
- Sony
- Strauss
- Tesco
- Vodafone

## 2013: Your e-learning to-do list

Where does this leave you as the L&D professional? You're skilled enough to set your own priorities, but as a starter for 11, here's a to-do list to consider for 2013:

1. Develop a business case for your key initiatives, and ask vendors to help you figure out how you'll measure success – they're motivated to support you on this.
2. Ask yourself whether you could design your next learning programme to be used on the job, where users want it. How would it change your approach?
3. Look at how your learners are accessing content. Could you strip out key resources from some of your content and package them differently? Could you pilot this?
4. If you're not using webinars or online tutors or communities to support your formal e-learning courses, run a pilot to see if there's appetite for these.
5. Look again at the devices your learners are using, and at how you're going to make mobile work in your organisation. Think beyond multiple versions and native apps if they're putting mobile learning out of budget reach for you.
6. Consider web designs as influences on your approach to e-learning design. Encourage your teams, vendors and colleagues to move beyond the back/next constraints.
7. If you're not already segregating your e-learning into levels, consider a model where you can define the levels that you need and use it as reference when engaging with vendors and internal clients.
8. Look beyond the structure of the course to design full learning programmes and experiences. Ask learners what would enhance those experiences for them.
9. Consider what you could do to make your line managers and coaches feel supported and in turn supportive of learning initiatives, possibly starting with them as your target audience.
10. Ask yourself what would happen if you didn't assess a specific learning intervention, but just recorded completion.
11. Measure something. We all benefit from more examples of learning technology making a difference.



## The new learning and technology architecture

In Clive Shepherd's book *The New Learning Architect*, he sets out a model for a new learning and technology architecture. This was used in the interviews for this paper for structured discussions. These are the results we found using that model.

Formal learning	Informal learning
<ul style="list-style-type: none"> <li>○ Less formal courses in some areas but formal learning still used extensively</li> <li>○ Formal learning is increasingly blended learning with less face-to-face and more e-learning and virtual classrooms</li> <li>○ E-learning design within formal courses, is changing but currently still mainly delivered to desktop in the formal context</li> <li>○ E-learning is shorter, less linear, richer, higher-quality, and has more game-like elements</li> <li>○ More fine-grained approaches so formal learning is closely related to role and needs rather than a sheep-dip approach</li> <li>○ There is a use of formal social learning</li> <li>○ Formal approaches still used very extensively in compliance/mandatory areas</li> </ul>	<ul style="list-style-type: none"> <li>○ Seeing greater use and support of informal learning, and recognising role L&amp;D can play in informal learning</li> <li>○ L&amp;D playing greater content curation role</li> <li>○ Informal learning part of more mature adult models allowing learners to decide what they need</li> <li>○ More disaggregation of resources, often from formal courses, for use in informal context</li> <li>○ Shorter, non-linear e-learning modules designed for informal learning</li> <li>○ Encouraging more user-generated content</li> <li>○ Resources related to role, greater use of search to find resources</li> <li>○ Social learning limited but some growth</li> <li>○ Multi-device delivery to meet needs</li> <li>○ Relationship to content management in the organisation is also an issue as learners need access to a wide range of resources</li> <li>○ Less requirement for tracking</li> </ul>
Learning on demand (performance support)	Experiential learning
<ul style="list-style-type: none"> <li>○ L&amp;D actively providing learning on demand</li> <li>○ Mobile devices great for performance support – can get learning to where it is needed quickly</li> <li>○ Still involves design but simpler forms. Greater use of rapid authoring tools to create performance support content internally</li> <li>○ Often uses resources disaggregated from courses, content curation required</li> <li>○ Quicker and cheaper to create performance resources</li> <li>○ Emerging performance support types e.g. checklists, videos, simple animations</li> <li>○ Professional communities also being used though early days</li> <li>○ Used extensively in areas such as product knowledge for sales staff or engineers</li> </ul>	<ul style="list-style-type: none"> <li>○ Still a lot of workplace-based experiential learning happening using a mix of projects, workbooks, coaching and feedback</li> <li>○ Role of line manager has been identified as key in supporting learning</li> <li>○ Line managers have a role in identifying suitable projects, secondments, delegating, feedback and encouraging reflection</li> <li>○ Greater use of personal inquiry and reflection linked to portfolio building</li> </ul>



