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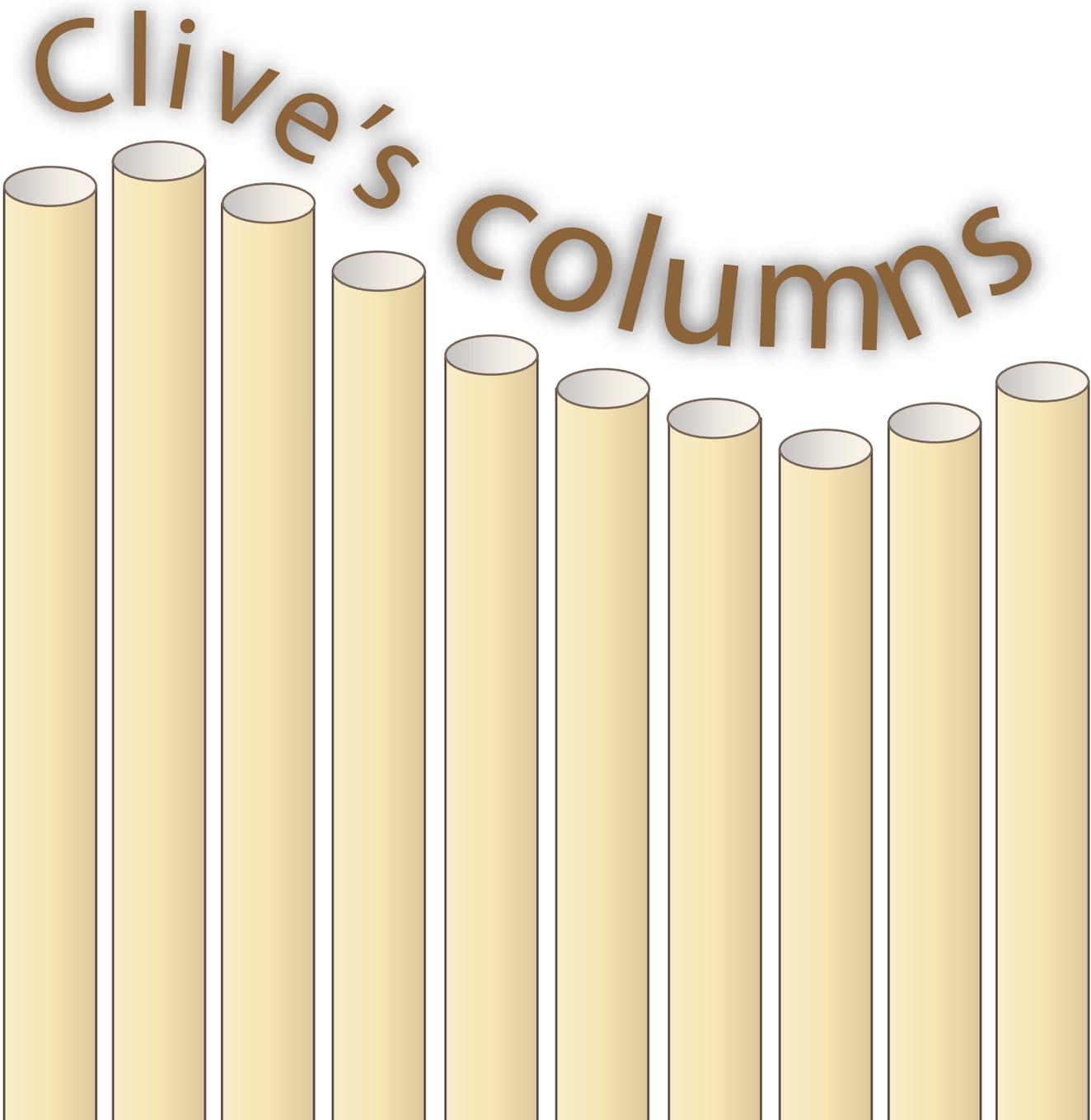
A further 24 of Clive Shepherd's columns on
e-learning and blended learning, originally
published between 2007 and 2009 in IT Training
and e.learning age magazines.

Contents

Mixed messages from the market

It's very hard to make sense of the information coming in, both formally and anecdotally, about the current state of the learning and development market. Looking at the classroom end of the market, there's not a lot of optimism about. Some classroom time is probably being lost to e-learning (which is definitely the case in the USA, but not proven here) but it's mainly being squeezed by a shortage of time, leading to ever shorter sessions (I've heard some stories of organisations offering half hour sessions – can anyone beat that?), and a noticeable tightening of the purse strings. In the CIPD's Annual Survey Report for Learning and Development 2007, which was responded to by 663 CIPD members working in L&D, some 24% anticipated a decrease in funding in the next 12 months. The squeeze is hurting classroom training providers as well as in-house units, with many examples of losses and reduced margins. Expect to see plenty of consolidation and failures in this market in 2007.

Now e-learning may not be everyone's favourite way to learn (in the CIPD survey, only 2% of respondents cited it as their favourite method – but then CIPD members are some of the world's most technophobic people!), but there seems to be an enormous flurry of activity in terms of e-learning development. Just about every producer of bespoke materials is working flat out, typically on very substantial projects providing 100s of hours of content. These projects go largely unheralded, as enterprises are no more likely now to issue press releases about their e-learning than they are about a classroom programme. This is indeed a sign of maturity in the e-learning market.

What is interesting is the fact that two very distinct models are emerging for e-learning development. On the one hand we have the traditional process, costing from £15000 to £70000 for an hour of finished material (cheaper if the work is off-shored), and with development timescales stretching to many months. This process typically includes a lengthy analysis phase, as subject knowledge is transferred to the designer and alternative designs are prototyped and pondered over, and a complex development phase involving many technical and creative specialists. This form of e-learning is clearly only suitable for major enterprises with large target audiences, and

for projects which can wait while the process is followed to the letter.

On the other hand we have the new rapid development model, with turnaround times as short as one week, and budgets as low as £2000 for a 20-minute module. Typically what happens here is that the client sends in the subject material, often in the form of a PowerPoint presentation, which is then rationalised, prettied up and supplemented with appropriate interactions, using one of the many new rapid development tools, such as Articulate, Adobe Presenter, Adobe Captivate and Atlantic Link. Rapid e-learning modules are intended to be used at the desktop, on the move or wherever employees find themselves with access to a computer. They're short enough to dodge the inevitable interruptions and distractions that beset any knowledge worker. They provide just enough information, just-in-time. Typical rapid e-learning modules provide quick updates on new products, policies or systems. They're not designed for skill building and they're not expected to influence attitudes.

Meanwhile it seems that everything changes and nothing changes. The CIPD survey found that the most frequently used learning and development activity is on-the-job training (OJT) – that's right, good old 'sitting next to Nellie'. What's more, OJT was cited by respondents as the most effective way for people to learn (41%), whereas formal training courses were cited by only 21% (and remember that's a survey of L&D professionals, who have every incentive to promote courses as a way of learning!). More support for less formal ways of learning came from the NIACE Briefing: Practice Makes Perfect. This 2007 survey of 2076 UK workers found that the favourite method of learning was by doing the job, which 82% found to be quite or very helpful. By comparison, a little over half found training courses as useful.

Perhaps we should not be so surprised. Learning on the job is relevant, authentic, task-focused and individualised, all positive characteristics for adult learning. Formal top-down inputs, whether classroom-based or online, may not always be able to match these characteristics, but they do the job efficiently and consistently, and that's why they're part of the mix.

Learning for real in virtual worlds

If I asked you to think about what the term '3D virtual world' conjured up for you, chances are I'd get a wide range of reactions. Of course you may just go 'duh' and turn to the next article. More likely you'd visualise one of the following: (1) some form of simulator, that allowed you to hone your flying, driving or similar skill; (2) an environment that allowed you to freely explore some interesting geographical location without having to leave your chair; or (3) a fantasy world in which you shoot everything that moves. What you are less likely to envisage is that these and many other manifestations of virtual worlds are of significant relevance to learning and development, and that you'd ever have a chance to work with what used to be considered the absolute top-end of big budget e-learning.

Virtual worlds are becoming accessible to more routine use in learning and development because the tool-kits originally developed to support action gaming and military simulation have found their way into the public domain and are being transformed into the 3D equivalent of rapid e-learning tools. Creating your own 3D learning world is no longer a question of buying 3D modelling software, building your world from scratch and then having a programmer get it to behave something like the real world. This is still an option, and may be necessary for more ambitious projects with higher budgets, but now you have the option to work with libraries of ready-made worlds (or at least components of those worlds) and to use authoring tools to shape those worlds into environments in which learning can take place.

Why would you want to? Well, even at their simplest level, virtual worlds are more engaging and authentic than a typical 2D e-learning environment or even a classroom. Let's imagine you create a 3D model of a manufacturing site and use it to help new starters find out where everything is; perhaps you use the model of the inside of a computer to help explain how it all works to IT students; maybe you use a model of the African bush in which to hold a live, online discussion for charity workers about the problems of working in the field. In none of these cases are you attempting to simulate the functionality of these environments; what you are achieving is a sense of immersion, of authenticity and engagement. Try doing that as effectively with an e-learning scenario based only on text and still images, or a case study delivered in a classroom.

But this represents only the starting point for what can be achieved in virtual worlds. Visual realism can be combined with functional fidelity to create 3D worlds that actually behave like their real-world counterparts. Imagine a model of a fashion store in which trainee sales staff must interact with virtual customers; or a busy warehouse in which learners must identify health and safety hazards; perhaps the head office of a multinational corporation, in which trainee consultants must interview key personnel to conduct a study. Simulation is valuable because it allows for safe practice, without risk to life, limb, wallet or ego. 3D simulations not only feel right, they look right too.

But as anyone who is currently nursing a repetitive strain injury caused by over-zealous usage of their Nintendo Wii console will testify, game playing takes engagement to new highs. Games provide the player with challenges in which they have to overcome obstacles (hazards, misfortunes, competitors) in order to achieve well-defined goals, while working within preset constraints (time, rules, 'lives'). Well-designed games provide the player with sufficient reward to tempt them to ever-greater efforts. They are the ultimate motivator and can, of course, be integrated into 3D worlds, with or without the added bonus of simulation. Imagine that same retail scenario, but one in which trainees progress to higher levels by tackling more and more difficult customer situations; or a variant of the warehouse simulation in which trainees compete to find the health and safety hazards in the shortest possible time.

Virtual worlds can be used in a variety of contexts. Worlds designed to support self-paced learning, such as those produced with Caspian Learning's *Thinking Worlds* software, can be deployed online or offline. Collaborative, real-time learning can be accomplished using tools such as *Forterra* or simply by developing your own real estate in that most notorious of internet worlds, *Second Life*. No, you're not going to knock up a virtual world in an afternoon, but then you already have tools in case you need to develop content rapidly. Virtual worlds are for those situations where innovation will be rewarded, where the objectives are a little tougher to attain. Whatever the case, from now on virtual worlds are another option you really do have to take seriously.

Three tiers in the content pyramid

Over the past year a clear distinction has evolved between traditional, formal e-learning content, and content that is developed using rapid tools and processes by a broader community of e-learning enthusiasts, including generalist trainers and subject experts. I have described these as e-learning's two tiers:

High end: The top tier consists of e-learning that delivers something special, something that can't be achieved easily other ways. This tier is reserved for projects with complex and/or high impact objectives, sensible lead times and appropriately generous budgets. These projects require the care and attention of professionals, typically working as teams of specialists.

You would expect e-learning content at this higher level to include a degree of intelligence or personalisation, and/or challenging scenarios using rich media, and/or simulations with high functional fidelity, and/or elements of game play, and/or 3D models of interesting objects that can be manipulated and explored, and/or virtual worlds with high physical fidelity. At very least, you should expect high-end content to be professionally crafted to be clear, engaging and memorable, whether or not it employs leading-edge techniques.

Because of its cost, high end content is almost always going to be a top-down learning intervention, created at the initiative of an organisation's management.

Rapid development: The lower tier consists of 'good enough' digital content, designed to communicate simple information or provide basic knowledge without fuss. The form may be a simple interactive tutorial, a short video, a podcast, a screen capture movie, a PowerPoint or a PDF. This content may be designed and developed in-house, by subject experts or generalist trainers, or outside by a new breed of rapid developers. The turnaround time could be anything from a few hours to a few weeks, and the cost is likely to be under £5K.

Rapid development of this sort could result from a top-down management initiative, but it could also be created from the bottom-up, on the initiative of subject experts who are empowered with the tools, the time, the skills and the authority.

Social learning technologies: Where this two-tier model fails is that it does not properly integrate with more recent developments in using web 2.0
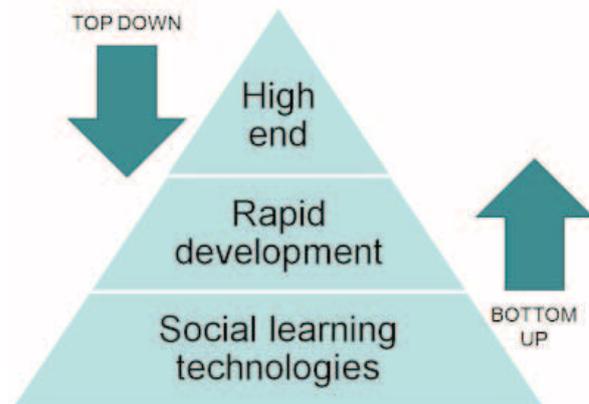
tools for informal learning. Enter Nick Shackleton-Jones, Manager, Online & Informal Learning for the BBC. Nick's model, shown above, which he presented at a recent eLearning Network event on rapid e-learning, consists of a pyramid with three tiers. As you descend the pyramid, the volume of each tier increases, so you would expect there to be far more user-generated content than rapid development, and far more rapid development than high end content. This may not be the case now - and Nick admitted that at the BBC there is not yet a great deal of user-generated content - but that is what the model is implying for the future, certainly for those organisations employing substantial numbers of knowledge workers.

Content generated using social learning technologies such as wikis, forums, blogs and the like, is an entirely bottom-up initiative. It occurs because managers are not the only ones with an interest in learning and performance improvement - it is to every individual's advantage that they have the knowledge and skills necessary to carry out their current jobs effectively, to take advantage of opportunities for advancement and to remain competitive in the marketplace.

High end, rapid and user-generated content are not in competition with each other, any more than Hollywood movies are competing with corporate videos or with YouTube movies shot with a camera phone or webcam. They all serve different purposes and, as a result, adopt different production values. Professional designers should not feel threatened by this proliferation of content created by enthusiastic amateurs - the more experience people have with creating content for themselves, the more they will appreciate the skills the professionals bring to bear.

Statistics are like a bikini

In April the eLearning Guild published its Snapshot Report on Learning Modalities. The report looks at the take-up of various forms of e-learning as reported by Guild members. Of the 1744 respondents, 77% were located in the USA, which reflects the general breakdown of Guild membership, but the numbers responding from other parts of the world were still significant enough to enable some broad international comparisons – and to raise a few eyebrows.

Let's take traditional e-learning first, if there is such a thing. The survey showed that self-paced e-learning is used sometimes or often in 83% of organisations, but with a higher take-up in bigger organisations. Usage is consistently high across the world, with Europe matching the USA. Synchronous e-learning, using web conferencing /virtual classrooms, is used sometimes or often in 63% of organisations, with again a higher take-up in larger organisations. Perhaps not surprisingly, given its geographical size, this is one category where the US leads the rest of the world in usage, with Europe (at 53%) a little behind the norm.

So, no particular surprises so far. What about the use of more cutting-edge approaches, such as learning games and simulations? Well, simulations are used sometimes or often in 56% of organisations, and learning games in 31%. These figures may seem on the high side, but remember that software demos are classified as simulations and learning games are just as likely to be quiz games as adventures in 3D worlds. However, the breakdown of these results is interesting: Europe is only slightly behind the US in the take-up of both of these categories, with the biggest use in Asia Pacific; and the most likely sector to use both simulations and learning games is finance, banking and insurance. Now we know that, what with the credit crunch, the finance sector is having quite an exciting ride at the moment, but I must admit I did not anticipate they'd be so adventurous in their learning interventions.

Perhaps the most interesting aspect of the report is what it tells us about the usage of the so-called Web 2.0 technologies for learning. Apparently, blogs are used sometimes or often in 22% of organisations, podcasts in 20%, and wikis/communities of practice in 31%. Those figures do look high, but be aware that 'sometimes' is typically three times more prevalent than 'often'. What's really interesting is where all this is happening. In the US, where these technologies originated and where the topic is so hot it's scalding? In major corporations, who have the money to lavish on experimenting with new technologies? No, usage is higher in smaller organisations (<500 people), in just about any region outside the US (with Asia Pacific top and Europe well ahead of the US), and in public sector and academic institutions more than the private sector.

Now I'm going to hazard a guess and say what I think these figures tell us about the take-up of Web 2.0 for learning. First let's remember that blogs, wikis, social networks and the like are 'bottom-up' approaches, in which employees take the lead. They don't sit well in cultures where all the power is focused at the top of the hierarchy and where training is something that is 'done to' employees because management says so. So don't be too surprised when large American corporations show a reluctance to engage with Web 2.0. After all, many great ideas for participative management practices were developed by US thinkers, but these ideas were mainly applied elsewhere in the world, where the culture was more supportive. Remember quality circles? Invented in the US, deployed in Japan.

As we all know, statistics are like a bikini - what they reveal is suggestive, but what they conceal is vital. Given that the respondents to this survey were self-selecting e-learning enthusiasts, primarily American, and that much of the terminology used to describe modalities is open to misinterpretation (what's a game? what's a simulation?), it would be wrong to make any sweeping generalisations from this data. However, full marks to the crew at the eLearning Guild for feeding us with plenty of food for debate.

There's life in Kirkpatrick yet

I have been taking a great interest in the work being done by the CIPD in conjunction with the University of Portsmouth, under the heading of the *Value of Learning* project , to develop a new approach to the evaluation of learning interventions in organisations. While the project team acknowledges that Kirkpatrick's four levels of evaluation have proved valuable over more than thirty years in helping to measure instructor-led, content-based 'training' interventions, they feel that a new approach is necessary to support a more self-directed, work-based process of 'learning'.

Now, first of all let me say that I am fully supportive of self-directed, work-based learning, not least because that's what I prefer; but there is little evidence of a radical departure from the practice for organisations to deliver good old-fashioned top-down training programmes. Surely, what we need a combination of the two.

It's worth checking first of all whether Kirkpatrick's model is still useful for evaluating the top-down stuff. My assertion is that it is, even though in practice, we don't do that much of it - according to an ASTD survey, 91% of organisations evaluate at level 1 (reactions), 54% at level 2 (learning), 23% at level 3 (behaviour change) and 8% at level 4 (impact on results).

Let's start with level 1. We make fun of the 'happy sheets ', but that doesn't mean they are of no importance. If your customers don't like what you deliver for them, then they will be reluctant to participate in future events and they will tell their friends. If you ignore negative reactions, you will be without a job and out on your ear in no time at all. And level 2 is important too. There's no point in having objectives for learning, however loosely defined, if you don't measure whether they are being accomplished. And in any assessed course then assessment of learning is a given.

Levels 3 and 4 may not be so important when learning is the primary goal, as it is for education, but in a training context, where the goal is to change behaviour in order to improve performance, then they are clearly vital. Learning is of no use if it doesn't get applied (level 3); nor is it any use if, when it is applied, it makes no positive difference (level 4). Now I know that evaluating at levels 3 and 4 is hard, and if you were going to do it properly you'd need pre and post measures and control groups, but it's rarely necessary to go that far. If you're proposing a highly expensive new intervention or looking to make a major change in existing practice, then it's only right and proper

that you evaluate it properly; but even Kirkpatrick doesn't propose that you undertake major studies routinely - he asks merely that you establish a reasonable chain of evidence, i.e. we did this, they learned that, they seem to be putting it to work and it seems to have made a positive impact.

Return on Investment (ROI) is often mentioned in the context of Kirkpatrick's model, although Kirkpatrick himself never used this measure. ROI was added much later as a proposed fifth level in Jack Phillips' extended model. Not that ROI should be discarded as an embellishment - I know there are some l&d professionals whose numeracy doesn't rise to such lofty heights, but in certain circumstances ROI is important. If we're investing so much money in this effort, we want to know what we're getting back in return.

So does Kirkpatrick's model apply as well in a learner-centred context? I think it does. If I'm engaging in any sort of learning activity, I want to know: did I enjoy it? did I learn what I wanted? was I able to put it into practice? has it made any difference to my performance? And, as a form of ROI measure, do these improvements in performance justify the effort I put in?

The *Value of Learning* model contrasts ROI with ROE, the return on expectations, 'which assesses the extent to which training has delivered the benefits expected.' But surely all evaluation is a measure of ROE: I expected to enjoy the course; I expected to learn something; I expected to be able to apply it; I expected all this to impact on my performance; and I expected the effort put in to give me a payback.

What the new model does rightfully acknowledge is that effectiveness is not the only useful measure of learning and development performance - efficiency matters too: how many people took up the opportunities provided? how long did it take for them to learn what they needed? did this learning happen in a timely manner? how much did it cost? what proportion of our capacity was taken up? and if we charge for delivering training services, did we receive the income that we needed?

I'm going to take some convincing that Kirkpatrick isn't a reasonable starting point for assessing effectiveness, both qualitative and quantitative. Supplemented with measures of efficiency, I think we get all the indicators we need; and implemented sensibly, at a level of detail which is proportionate to the investment, evaluation is within the reach of any organisation.

CIPD survey paints a confusing picture

Am I alone in thinking that the CIPD's Annual Survey Report for 2008 on Learning and Development paints a highly confusing picture on the status of e-learning in the UK? The CIPD sent surveys to 5000 of their members with the role of learning and development manager and received 729 responses. Of these, half were private sector and half public/voluntary; 55% worked for organisations with less than 1000 employees, while only 20% represented organisations with more than 5000 employees. It would be fair to assume that all of the respondents work in HR and are therefore likely to be responsible for training that works across their organisations, e.g. management, induction and compliance. Few will be responsible for technical training in specific functional areas.

Each one of the headlines concerning e-learning takes some interpretation:

'Less than half (47%) are using more e-learning and a quarter (26%) say they don't use or no longer use e-learning': When you look at the figures, what you see is a more positive picture: not only are half of all companies using e-learning more, only 2% are using it less. The fact that 26% don't use it at all is hardly surprising when you consider the high proportion of small organisations represented. Small organisations are much less likely to go for e-learning, given the lack of scale to justify bespoke development and the lack of expertise available to them.

'Few feel it is the most effective learning and development practice (7%)': Needless to say, this is the figure that is picked up on in the press and to be fair, it is significant that l&d managers don't rate the efficacy of e-learning as highly as other, more traditional approaches. Nevertheless, you have to wonder a little how much meaning you can attach to their answers. First of all, what sort of e-learning are they talking about - self-paced, self-study lessons? live, online events using virtual classrooms? collaborative online learning? It is impossible to have one measure for the effectiveness of all three, because they have almost nothing in common except for the fact that they are delivered using technology.

Then you might ask how they know whether e-learning (or any other medium for that matter) is effective or not? Do they actually measure effectiveness (the CIPD's own *Value of Learning* project suggests not)? Are their opinions based on their own prejudices (sorry, I meant 'preferences') or on feedback from customers, i.e. managers and learners themselves?

Effectiveness is also situational. The classroom is effective for x, coaching is effective for y, e-learning is effective for z. It's not the fault of the respondents that their responses are so generic – they can of course only answer the question that's put in front of them.

You might also wonder whether it is meaningful to ask how effective one medium is compared to another - surely the most critical issue is whether a medium *is* effective. And effectiveness is in itself only one half of the story: A medium is chosen for its effectiveness and its efficiency - how much it costs, how long it takes, and so on. Coaching and on-job instruction may be preferred options, but can you really afford them?

'Larger organisations use e-learning to a far greater extent than small organisations': Of course they do. Most trainers in smaller organisations have little or no idea what e-learning is and wouldn't know where to start. Of course this does need addressing and the CIPD itself would be the ideal body to raise awareness and help develop expertise in smaller organisations.

'Nearly half tend to agree that e-learning is the most important development in training in the past few decades': Not surprising because it is one of the only changes. If you compare this year's CIPD survey with ten years back, you'll be hard pressed to notice the difference.

'29% say that in the next three years between 25% and 50% of training will be delivered via e-learning': I hate these percentages of percentages questions because they are so hard to interpret, although this finding is significant. If you remember that only 20% of the respondents were from organisations with more than 5000 employees, then you can expect that the large organisations are going to be doing one heck of a lot of e-learning. That's if you believe these forecasts: looking back through these surveys, respondents have always believed that in the next year they're going to move forward more than they have in the past ten years.

'More than three quarters (79%) feel e-learning is not a substitute for classroom-based learning': Of course it's not. But why ask the question? Do we ask whether coaching is a substitute for the classroom? Or whether the classroom is a substitute for coaching? These questions are so loaded they could go off at any minute.

''The vast majority (92%) feel that e-learning demands a new attitude to learning on behalf

CIPD survey paints a confusing picture (cont.)

of learners': This is undoubtedly true, but then only of learners who are Gen X and older, which includes all the respondents to this survey. In my experience, a much bigger issue is that e-learning demands a new attitude on behalf of learning and development professionals.

'Almost all (95%) feel that e-learning is more effective when combined with other forms of learning': What can I say? This one is unambiguous and I heartily agree. And, of course the same is true for other media: the classroom is more effective when combined with other forms of learning; coaching is more effective, etc.

I can understand why the CIPD is reluctant to revise their survey questions too radically, because this makes year on year comparisons so difficult. But the time really has come for a fresh think. To obtain usable data you need sensible questions, and surely that's not so hard to figure out.

Tough times bring opportunities as well as threats

The last thing anyone needs is another person telling them that times are getting tough – we've either heard it all before or we simply don't want to hear it at all. Higher commodity prices, tighter credit and dropping asset prices have all combined nicely to take the smile off our faces. If you think you're having problems, just consider yourself lucky you're not an estate agent or a dealer specialising in gas-guzzling 4x4s, assuming of course that you're not one of those now considering a career in e-learning.

In a downturn, there are opportunities as well as threats and not just for insolvency accountants. While our classroom colleagues may be struggling – and by all accounts the market for public classroom courses is disappearing down a black hole – e-learning does have some attractions for the cost-conscious. Assuming that after the cutbacks your organisation has any learning and development budget left at all, there must be a temptation to make it go that little bit further through the use of technology. I'm not sure you need it, but let's just rehearse the arguments one more time ...

Self-study e-learning is twice as fast as the classroom and that's a proven fact. Not only that, it saves on time spent travelling to central training locations and the associated travel and subsistence costs. Given that student time and expenses account for two thirds of most training costs, you are talking very significant savings here. Of course, these savings are pointless if the e-learning isn't effective, so unless you are merely in the business of ticking boxes, it's just as important to make sure that the e-learning you employ is up to the job.

Another area where the potential for cost reductions is yet to be fully exploited is in the running of live events. However flexible self-study might be as an approach, we know that it can't do the whole job – some training methods can only be sensibly implemented in real time. But, rather than booking out a training room and getting everyone together face-to-face, consider the potential for synchronous online media. About one-third of all e-learning in the USA – and that's 10% of the total – is carried out using web conferencing software (or virtual classrooms as they're sometimes called). The total in Europe is lower but the potential is almost as great. If you have a dispersed audience and you can implement your training in short, probably one hour chunks, then do consider going online. Existing classroom trainers have many of the skills needed to make good virtual instructors, although they will need some hand-holding.

And don't forget the green argument. Whichever way you get to your face-to-face events – by road, by rail or by plane – you're going to be using a lot more energy than you would be powering up your PC. Oil and gas are not only expensive, they're harming the environment, and that's a powerful reason for switching to online media where they are capable of doing a decent job.

Of course, a prolonged downturn will not be all good news for e-learning. We're already hearing how large companies are extending payment terms from one month to two or even three. Most e-learning vendors are small and even some of the more successful ones will find it hard to maintain a positive cash flow. Expect casualties. And employers will be much less inclined to innovate or put money into flagship projects – you know, the award-winning ones. Those working at the rapid development end of the market may be the main beneficiaries in the next few years. Those selling Hollywood solutions or complex blends may have to eke out a living until better times return. And of course they will.

Training's long tail

They say that when you want a job done, give it to a busy person, and most l&d professionals would put themselves in that category. On the whole, we'll do the very best we can to respond to a requirement, regardless of the time we have at our disposal and the items already on our to-do list. But in the end there really are only so many hours in the day and we have to say enough is enough. Let's face it, there are far too many needs for us to address them all and, like any good manager, we have to prioritise and delegate. That means having a strategy not only for the big projects, where large numbers are involved, but for that murky world where minority interests prevail, that we call The Long Tail.

The phrase The Long Tail was first coined by Chris Anderson in 2004 to describe the niche strategy of businesses, such as Amazon.com, which sell a large number of unique items in relatively small quantities. Whereas high-street bookshops are forced, by lack of shelf space, to concentrate on the most popular books, shown in the chart below in blue, retailers selling online can afford to service the minority interests shown below in orange. Interestingly, for a retailer such as Amazon, the volume of sales for minority titles exceeds that of the most popular; yet before the advent of online retailing these needs would have been very hard to service.
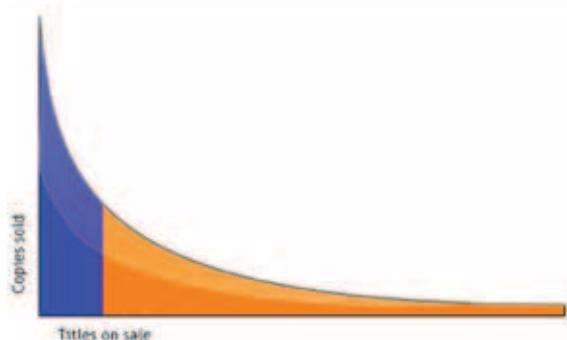
The concept of The Long Tail can be applied as well to training needs as it can to sales of retail products; just substitute 'training needs' for 'titles on sale' and 'target population' for 'copies sold' (as shown in the second diagram). However hard we try, as trainers we cannot hope to respond to The Long Tail through formal, top-down efforts. We should restrict our primary efforts to those requirements that apply across large audiences, as well of course to those critical skills that cannot be left to chance. This applies to e-learning as much as it does to traditional training approaches:

the top-end, 'Hollywood' content can only be cost-justified when designed for Hollywood-size audiences, typically measured in many thousands.
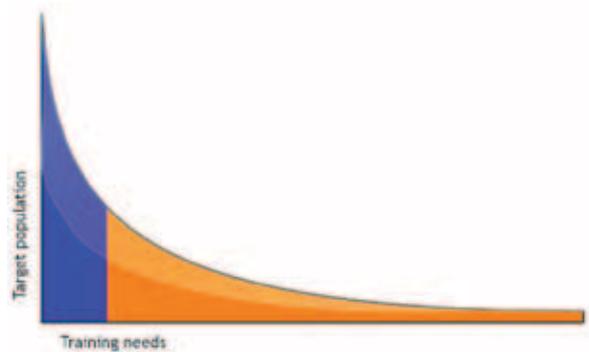
We can begin to address the middle reaches of the tail if we are prepared to delegate some of our responsibility for top-down interventions to generalist trainers and subject experts. In e-learning terms that means rapid development processes making use of rapid development tools. The moderately-sized audiences in the middle of the tail will be only too happy to be supported by 'good enough' content, produced on a timely basis to meet real needs.

But at the far reaches of the tail, we have to rely on bottom-up approaches to meet the needs of small numbers. In a way this has always been the case – in the absence any other help, an employee has never had any option but to ask for help from co-workers and supervisors, or at very least just to copy what they do. But l&d professionals can help the process along in a number of ways. First and foremost, they can ensure that employees are aware of their responsibilities as teachers as well as learners, and cognisant of the most effective ways to pass on knowledge and skills. And where employees have access to the appropriate technology, they can make available tools that smooth the way for bottom-up learning; tools like forums, wikis and sites that enable employees to connect with experts and others with similar interests.

Good managers have always known that they cannot accomplish great things if they try to do everything themselves – they empower others and then encourage their efforts. Trainers who try to control all aspects of the training process and deny others the tools to make their own contributions, will never satisfy the needs of The Long Tail, and risk being bypassed in the rush to get things done in a fast-changing work environment.

Learning 2.0 –fast growth but from a small base

Without doubt, the most compelling new story in l&d over the past couple of years has been the increased emphasis on informal learning and the way that this can be facilitated using new Web 2.0 technologies. In case this has passed you by, Web 2.0 is the second generation of the World Wide Web created for us originally by Sir Tim Berners-Lee at CERN back in 1991. Web 2.0 realises many of Tim's original ambitions for the Web as a collaborative communication medium, and not just a top-down format for online publishing. Web 2.0 encompasses blogs, wikis, social networks and all forms of collaborative media sharing (Flickr for photos, YouTube for video, SlideShare for slides, etc). Web 2.0 has relevance for informal learning because it encourages the sharing of expertise from a bottom-up perspective, without the need for managerial intervention.

The eLearning Guild has recently released a new report on *Learning 2.0 - Learning in a Web 2.0 World*. As usual with Guild reports, there's a good overall response, in this case 1160 members from 979 different organisations, of which 73% are US-based.

For the purposes of the report, the authors define Learning 2.0 as 'the idea of learning through digital connections and peer collaboration enhanced by technologies driven by Web 2.0,' which seems reasonable. I've picked out a few highlights, from my perspective:

- 'Learning 2.0 can play an important role in supporting formal learning in terms of active support and follow-through.' This is an important point, because there is no reason for formal and informal approaches to be seen as in opposition. Next generation blended learning integrates informal techniques, both technological and traditional (coaching, buddying, project work, etc.), alongside formal face-to-face and online ingredients, to create blends which help to ensure the successful transfer of new learning to the work environment.

- 'Learning 2.0 is growing much faster than other approaches.' This is true, but let's not kid ourselves, because the starting point was pretty low. It's still difficult to find convincing case studies showing the use of Web 2.0 approaches for learning in the workplace, other than at the more obvious high-tech organisations. Many learning and development people have been enticed by the prospect, but not so many know where to start.

- 'It is the belief of the authors that younger workers will demand it, and that organisations who adopt it will do better when it comes to attracting and retaining talent.' This is the usual argument about the need for organisations to adapt to their new Gen Y entrants. While I agree with the sentiment, I don't believe many organisations will be having trouble attracting and retaining staff in a recession.

- 'Seventy percent of respondents plan to apply more Learning 2.0 in the coming year.' Now, survey respondents are always ridiculously optimistic about what they will do next year, but this still has to be regarded as a positive endorsement of the idea.

- 'The biggest users are in Europe, Middle East and Africa, and in Asia Pacific.' We have to bear in mind that the number of respondents to the survey from these regions were much lower, but it still baffles me to see the USA lagging behind in the use of technologies which it invented.

- 'Small organisations use Learning 2.0 the most.' And that's because they are not fighting an embedded top-down culture and IT departments who think you're from Mars when you talk about a wiki.

- 'Learners under 30 years of age take more advantage of it.' This is not surprising, of course, given that younger people have already had far more exposure to Web 2.0 technologies. But Learning 2.0 is not just for the young - the idea may be unfamiliar, but the benefits are universal and the software extremely easy to master.

The report also quotes two pieces of third-party research. According to the University of Massachusetts, some 77% of Inc 500 organisations have adopted some form of social media tool. And management consultants McKinseys claim that three-quarters of executives plan to maintain or increase technologies that encourage user collaboration.

An interesting side-issue arising from the report concerns the 'training modalities' used by respondents. While Learning 2.0, asynchronous and synchronous e-learning and even the classroom were showing increased usage, mobile learning was down 10% and serious games down 6%. It looks like 2009 is going to be a tough time for working at the bleeding edge.

Make or break times for learning and development

With the economic downturn in full swing (assuming, that is, that downturns can swing) and training budgets as ever looking vulnerable as the first candidate for cuts, I'm beginning to hear once more that well-honed argument that training should be regarded as an investment and not an expense. As if that was all there was to it! "Oh, please accept our apologies for this misunderstanding," say the senior management team in unison. "How much money is it that you want?" Some chance.

Let's leave aside for a minute the accounting argument about what actually constitutes an investment, and just use the term in its everyday sense. Surely most forms of expenditure incurred by an organisation could also be viewed in this way: accounting can be viewed as an investment in future financial security; customer service as an investment in customer loyalty; marketing as an investment in future sales growth; research and development as an investment in new products; and so on. Which means that learning and development is not really that much further along the path in securing funding than all these other departments.

Technically, it's hard to see how training could be seen as an investment in the accounting sense, because employees (other than professional footballers) are not assets that can be sold - in fact they can leave anytime they want, and frequently do. At best, they can be regarded as one of an organisation's intangible assets, contributing to the 'goodwill' of a business. But no-one has ever dared put employees on the balance sheet, and they probably never will.

But let's just go with the idea that training can be seen by senior management as an investment. Is that enough to open the purse strings? I think managers might have a few questions: What sort of return can we expect on this investment? How long will it take for this return to occur? How confident can we be about this return? Would other measures (hiring and firing, mergers and acquisitions, new incentives and disincentives, better working conditions, improved tools and equipment) yield better returns in terms of performance improvement? Would we get a better return if we just left the money in the bank (assuming we can find one that's safe enough)?

Very few organisations have so much money that they can respond positively to every request for funds, so the process of budgeting is inevitably competitive. Unfortunately, being competitive is not something learning and development departments have historically been very good at. They need to learn and quickly.

Of course, in any downturn some training is quite clearly critical to an organisation and will be maintained without question. However, there's also likely to be a substantial portion that does not provide obvious benefits and has never been properly validated – now is definitely the time to dust off that training evaluation manual and put it to work. Trainers might also like to consider how much of what they deliver can really be justified given huge recent advances in neuroscience and learning psychology – is there really a place for the pseudo-scientific claptrap (I would mention NLP here but don't want the death threats) that permeates so much soft skills training? And lastly, how much training that we deliver is based on outdated and distinctly environment-unfriendly media choices.

Which brings us to e-learning. Trainers had better ensure they're fully engaged with technology, because like it or not, e-learning will be in demand. After all, the e-learning industry is better placed than most to meet a downturn, particularly one that is being fuelled (excuse the pun) by high energy costs. Let's look at the arguments: self-study e-learning is twice as quick as its classroom equivalent, and that's a money saver; e-learning in all its forms saves bucket loads of cash when it comes to travel and subsistence; e-learning is more flexible and accessible (which, if you're cynical about these things, might just mean employees doing it in their own time); and as a bonus, e-learning is the green alternative, providing employers with a positive spin that they can put on any decision to axe classroom events.

When times are tough, no trainer can survive on the basis of their past successes alone. Businesses will reward those departments that take a proactive stance to dealing with current problems; that show that they are in tune with business priorities. These are make or break times for learning and development; what emerges following this recession will be leaner, more innovative and more responsive than ever before. Make sure you're not confined to history along with the dinosaurs.

Back to basics for 2009

In writing this I am keenly aware that many readers may already be bored to tears with articles that position themselves in the context of the economic downturn. In spite of this, I believe it would be irresponsible at this point in time to take a different, perhaps more optimistic perspective, because quite honestly not much else matters at the moment. As friends, family and work colleagues are threatened with losing their jobs, it would be amazing if those of us working in e-learning, however bullish we may be in normal circumstances, did not adopt a more cautious and defensive approach just at the moment.

The number one priority for the e-learning community in 2009 is to survive the recession and be prepared to take advantage of the opportunities that will arise when the upturn finally arrives. There are some, not least those developers who specialise in the rapid turnaround of low-cost e-learning content, for whom the recession is itself the opportunity, as employers seek to keep their training programmes afloat by switching to more low-cost e-alternatives. Other e-learning specialists will not be so fortunate and will have to fight for survival in a shrinking training market, with the promise of a bright future in years to come.

One issue that will attract much less attention in 2009 will be the need for organisations to adapt their employment and management practices to meet the expectations of next generation (Gen Y) employees. As new graduates struggle to find jobs and many of those in employment lose theirs, Gen Y will learn, as previous generations have had to in previous recessions, that sometimes it pays to keep your head down and avoid rocking the boat. It's not that the demands of Gen Y for new approaches to learning are off-the-mark – in many ways they are expressing preferences which previous generations have been too shy to voice for themselves – it's just that in a time of economic crisis, the only changes that any employer will be willing to consider are those that can be made quickly, cheaply and with complete confidence. Much of the really cool stuff in e-learning (informal learning, social media, games, simulations, mobile learning) will have to stay on the back burner, because management will simply not be interested in experimenting. There will be enough exceptions to keep those already active in these fields going, but don't hold your breath for any big shift in corporate learning practice.

As we are seeing, governments will run up huge deficits to stimulate the economy and so the public sector may not be hit as hard in the short term. However, in a few years' time, as the private sector recovers, the deficits will have to be repaid and there could be heavy cutbacks in public spending. So, those working in the public sector should use this time to adjust to a very different future.

Apologies to those readers whose focus is less technological, but classroom training will be decimated. With its high travel costs and big demands on employee time, it's an obvious target for cost-cutting. In some cases this will be justified and in others not. Those training managers who are still in position, should argue that the most valuable classroom events should be maintained in slimmed down form as part of blended solutions. If they are sensible, they will be proactive in drawing the attention of management to those events which are of lower priority right now, rather than waiting for much more arbitrary decisions from above.

Whatever happens, it's a certainty that many classroom trainers will lose their jobs, become freelance and find that there is not enough work to go round, causing daily rates to tumble (in IT training this has already happened). Those who will be asked to stay will be those who show the most willingness to adapt to changing circumstances and engage with technology. If they can beg, steal or borrow the money they should aim to get themselves trained up in e- or blended learning design and delivery, because these are the qualifications that will stand out on CVs when employers start recruiting again.

One aspect of e-learning where we could see major growth is synchronous e-learning using web conferencing, primarily to save travel costs. Any organisation with a distributed workforce should be looking seriously at this opportunity, not least because the set-up costs are reasonable and existing classroom trainers can be quickly taught how to ply their trade online.

There are opportunities in any situation, even if those opportunities serve only to mitigate the damage. Those learning and development departments that are proactive in helping their organisations respond to the crisis will be rewarded by being allowed to survive. The sitting ducks will be shot.

Gen Y is the least of our worries

Much of the discussion at the Online Educa conference in Berlin last December was around the challenges posed by a new generation of learners, the so-called Generation Y. Given that a good half of the participants at the conference were from higher education and that, as a result, most if not all of their students were from Gen Y, this emphasis was understandable. However, for the rest of the audience, those with a responsibility for workplace learning, the impact of Gen Y is only just being felt.

So, who or what is Gen Y? Well, if you were born somewhere between 1982 and 2000 (the latter is unlikely, if you're reading a trade magazine) then you're the real thing. You've been brought up with video games, mobile phones, the World Wide Web, MSN and social networking; and, until recently, you've also been living through a period of unprecedented prosperity. If you have many of the same technological habits as Gen Y, but don't qualify on age grounds, then, like me, you're Gen X (1961-1981) or a Baby Boomer (1946-1960) in Gen Y clothing (by the way, they can tell you apart – the middle-age spread and the grey hair not being the only giveaways – they might also notice how long you take to send a text message).

There are two takes on the characteristics of Gen Y. First there's the negative: "Gen Y are the 'diva' generation: high-maintenance, out for themselves, lacking in loyalty, thinking only of the short term and their own place in it," (Association of Graduate Recruiters). Well, in some ways these are simply the behaviours of a group who are in high demand, who can afford to play the market. Now job opportunities are becoming scarce and there's a risk of unemployment, Gen Y will have to learn to keep their heads down and ride out the storm. And, of course, the behaviour of Gen Y is adapting accordingly, as one employer, a Florida law firm, reports in *The Economist*, "the tone has changed from 'What can you do for me?' to 'Here's what I can do for you.'" However, this new behaviour will probably not come easily.

As for the positive characteristics - "Gen Y is tolerant, optimistic, collaborative, open-minded and driven," (suite101.com) - then we can only hope that these persist, because they are the qualities that we will need to get us out of this mess.

A little compromise will be necessary on both sides. The next generation will certainly have to temper some of their expectations and take the world as it is, not as they would like it to be, but their older bosses should also be prepared to make concessions. The economy will eventually recover, and demographic trends in most rich countries will make clever young workers even more valuable.

You might be asking what all this has to do with learning and development. Well, it seems Gen Y is as demanding about the training they receive as they are about their job opportunities. The website Barking Robot (and yes, you did read that correctly) defined the learning preferences of Gen Y as interactive, student-centred, authentic, collaborative and on-demand. Interestingly, these are the same preferences that I have and probably you as well. In fact this list bears a striking resemblance to the essential characteristics of effective adult learning described by Malcolm Knowles in the 1970s. We've all been bored, alienated and patronised by some of our learning experiences - it's just that Gen Y seems to be a lot more confident about expressing its feelings. They are the voice of the unknown disgruntled learner.

In summary, we need to get the Gen Y issue in perspective. Jay Cross warns us to "be aware that the magnitude of the financial meltdown is almost beyond comprehension. I can foresee training departments being eliminated almost entirely." In this situation, for learning and development professionals to be fussing too much about the needs of a new generation of learners would be like rearranging the deck chairs on the Titanic. First let's deal with the iceberg.

E-learning: The fad that's lasted 30 years

Rob Chapman caused quite a stir when his article *The e-learning diet: Not recommended for long term results* was published on TrainingZone. Here's how the article starts: "The nature of fads is that they generate millions of devotees, deliver results for a short period and then suddenly fail – leaving fans dejected and disenchanted. The Atkins diet, numerous manufactured boy bands, even the dot com bubble have all fallen by the wayside. Now it's the turn of e-learning to join the fads of the past as it crash-lands straight into the graveyard of training practices."

Now I've met Rob Chapman and he's both a nice guy and a successful businessman, but well-informed he certainly is not. Whatever you think of e-learning, it insults the intelligence of the learning and development community to pass it off as a fad, whatever motives he has as a provider of classroom IT training.

The term e-learning goes back a little over 10 years, but the concept is at least 30 years old, and is certainly more established as a discipline than the IT training which Rob purveys. Almost as soon as we had computers that sat on desks rather than in huge air-conditioned halls, the race was on to find ways to use all this processing power to accelerate the process of education and training. As Apple IIs proliferated in American schools, here in the UK we saw major initiatives using the BBC micro and later the IBM PC. The innovation was astonishing during this period, as VCRs and then videodisc players were added to the mix, and artificial intelligence techniques were applied in the search for a more individualised and adaptive learning experience. Many difficulties were encountered along the way, and it could be argued that we're still searching for that truly individualised learning experience – at least on a consistent basis – but at no stage has there been any sign that the search would be called off.

Of course, all things are relative, and when you compare e-learning to classroom education then perhaps a fad it is - after all, we've had classrooms for hundreds of years. But I'd argue that the enduring popularity of the classroom is not because it does a particularly special job (although it certainly can add something powerful when used at the right time for the right purpose), it's just that until recently there hasn't really been an attractive alternative. Classrooms are great when you want to engender discussion, conduct group activities and establish relationships (although you can do a reasonable job of these online), but hopeless if you want to convey information, embed skills or apply learning to the job. Above all, a classroom experience is teacher-centric, when most adults yearn to be in control of their own learning experience.

Where Rob is most clearly ill-informed is in the way he characterises e-learning as exclusively a self-study activity, conducted in isolation. Now he's not the only one to think that, but ignorance is never an excuse. Where e-learning differs from early computer-based training is in the way it employs the internet to make possible all sorts of collaborative activities that simply couldn't be accomplished in a face-to-face setting. If e-learning is a fad then here's what we are going to be doing without when the fashion changes: web conferencing, e-assessment, collaborative distance learning, social networking, wikis, blogging and micro-blogging, podcasting, games and simulations, forums, instant messaging and, while we're at it the whole World Wide Web! Each of these - and the endless other options yet to be invented - is an online resource which contributes hugely to learning. Remove these and we return to the dark ages.

If e-learning is a fad, then you would expect to see it rise and then fall. The trouble for Rob is that this particular fad shows no signs of falling. Numerous surveys show how the volume of e-learning has continued to rise over the past ten years, largely at the expense of classroom training. Now no-one's expecting this trend to continue indefinitely, because e-learning can only contribute so much to the mix. Most organisations have recognised that the future for formal learning interventions is one of blending – using the right mix of methods and media for the job at hand. If we look beyond the realm of formal learning, then the role of technology has only just begun. We probably won't use the term e-learning to describe the use of technology to help employees network and share expertise, but that's what it will be.

So, looks like e-learning is going to last the course, whatever we eventually call it. Whether the same can be said for the pop-psychology fashions that permeate the classroom world (I'm talking NLP, learning styles, accelerated learning, boot camps), remains to be seen.

Necessity really is the mother of invention

When I watched the TED video of David Merrill presenting Siftables - tiny computer blocks that interact with each other - it lightened my day. What a great idea; a genuinely groundbreaking educational innovation that opens up all sorts of new possibilities, particularly for the teaching of maths and English. It made me realise that, when times are tough and our normal working practices no longer deliver the results to which we've been accustomed, then we find ourselves under a massive pressure to improvise, to explore new possibilities that we hope will keep the show on the road. Most of us respond really well to this pressure - we do innovate and we do keep the show on the road. It seems that the old saying is correct - necessity really is the mother of invention.

Some economists have argued that we have lost a whole generation of entrepreneurs to the promise of easy money through property development. It seems that we are incapable as humans of recognising a bubble when we're in one - after all, who wants to be the sourpuss that spoils the party for everyone else? But the gains to the economy through house price rises are illusory; there is no real net gain, just a transfer of money from those who have to buy property to those who already own it. Perhaps now the bubble has well and truly burst we can see some of that entrepreneurial zeal applied to genuinely productive activity that creates jobs, provides some revenue to offset those mountainous budget deficits, and solves some of the really difficult problems that we are now facing.

Those of us who work in learning and development may not feel very wanted at the moment - we're the first overhead to be cut and it hurts to know that, at least in the short term, we're dispensable. But for the economy as a whole, we are prime movers on the road to recovery. In any recession, particularly one that's likely to be as deep and lengthy as this one, there will be plenty of casualties in the shape of redundancies and bankruptcies. These will not simply right themselves as the recovery begins, because things never return to business as usual. A lot of thinking will have been done, hard decisions will have been made and new working practices adopted. Much of these will be irreversible. As a result, a large number of people will have to be re-skilled to take on new roles.

As learning and development professionals we will play an important role in helping displaced members of the workforce adapt to new opportunities. We are unlikely to be of much help in this process if we are not able to show how we have adapted to change ourselves and embraced new technologies for learning.

I would go so far as to say that we have a duty to use this period of lower activity in learning and development to think ahead and plan for a better future. Rather than getting depressed and blaming it all on the bankers, we should be coming up with the innovations that will take us to another level.

It has been great to see how some of my colleagues in the UK have set such a good example: Kineo has developed a new rapid response model for bespoke development that has slashed costs and dramatically improved delivery times; Caspian Learning has developed a new authoring tool which makes it possible for any instructional designer to develop virtual worlds for learning. I'm sure you will be able to add many more examples of your own.

But this is only the beginning and we all have a part to play. Wouldn't it be great to look back in five years' time and see how we contributed to the recovery, not by criticising the failings of others, not by championing a return to the good old times, but by completely reinventing the process of workplace learning?

No such thing as a free lunch

It seems that Silicon Valley is entering its second 'nuclear winter' of the 21st century. Since the dotcom bust, technology enjoyed a spectacular revival centred on Web 2.0, providing mostly free services aimed at huge worldwide audiences. Web 2.0 has literally revolutionised the way we use computers, enabling us to collaborate, network and share with our peers with incredible ease, taking advantage of the massive expansion in server and network capacity around the globe – all paid for by some mysterious other.

Most Web 2.0 services are provided on the assumption that online advertising will eventually provide the revenue stream to 'monetise' the venture. Well this has clearly worked dramatically well for Google, but now the recession is hitting hard, it appears there's nowhere near enough advertising revenue to go round. According to a recent article in *The Economist*, Silicon Valley stands on "ground that is as unstable, seismically and metaphorically, as it was in the earlier bust. The world economy is in crisis, advertising is collapsing and start-ups are once again vanishing into thin air."

Typically, if something looks too good to be true, it probably is. Products and services can only be provided free of charge if someone other than the user is prepared to foot the bill. If advertising is not sought or is not available in sufficient quantities, it seems to me that there are limited circumstances in which free services can survive. The first of these is when the provider is the beneficiary of some form of grant, most likely through government, but perhaps from some charitable institution. Typically this will be pump-priming money, designed to stimulate research and development. It might get a project off the ground, but the money would not support a venture that took off on a large scale.

The second situation is where the provider is treating the product as a 'loss leader.' They hope that a positive reaction to the product will boost their visibility and reputation, making it easier for them to sell other products and services. There are countless examples of where content is provided free in this manner, in the form of blog postings, white papers, podcasts and free webinars, by consultants and all sorts of commercial bodies. This material has an implicit sales purpose which makes it difficult to impose a charge. But content is also provided by newspaper and other publishers who charge conventionally for their print-based products. Now newspapers themselves are under such pressure, and titles are closing down rapidly, it's hard to see how this model can be sustainable in the long run – after all, someone has to pay for the correspondents who provide the news stories that everyone else likes to comment on.

A third model is where the provider distributes an entry-level offering, hoping to build an appetite for the product that can only be satisfied by a premium version or with the aid of add-on services, such as consultancy, support, training, hosting or adaptation of the product. A great many software products that are becoming commonly used in the workplace fall into this category, including survey tools, online project management systems and web conferencing applications. The premium versions may not appeal to consumers, but are certainly attractive to enterprises which require large quantities of online storage, high levels of security, top performance and so on. Some open source tools can also be assigned to this category – the software itself might be free, but it still has to be hosted, configured and supported.

The final model is where the provider earns enough from other activities that they can afford to offer the product in question for free, perhaps simply because they believe in it. This argument extends to those individuals who contribute their spare time freely, as a hobby or as a form of voluntary work, not least those who work on open source software development.

So, we have got used to free content, free Web 2.0 services and free software, but we cannot assume that this situation will continue indefinitely. We may have to start dipping into our pockets to keep those services that we most value alive. After all, in the end there's no such thing as a free lunch.

Three months a-Twittering

Back at Online Educa in Berlin last December, I made the decision to undertake a three month trial of Twitter. Just in case you've been inhabiting another planet for the past few months, let me just digress for a moment by explaining that Twitter is a micro-blogging tool, which allows you to post very short messages to others who have chosen to 'follow' you, and to receive messages from those who you've chosen to follow. The messages are entirely textual but often include links to pictures and web pages. Most messages are open, i.e. not directed at particular individuals, although the facility exists for you to communicate directly with other Twitter users, either openly or confidentially. The messages, which are called 'tweets,' can contain 'tags' (descriptive labels), which allow messages relating to a particular event or topic to be aggregated.

OK, it's all a bit strange, and I must admit that at first I didn't really get it; but I was encouraged by the enthusiasm of Jane Hart, Josie Fraser and others, and decided to give it a go. So now the three months are up and it's time to reflect on my experience. Do I continue or call it a day?

The stats show a reasonable amount of activity: I am following 135 others, 352 are following me and I have made 457 tweets, which works out at about 3 or 4 a day. In practice, some days I don't tweet at all, on others I suddenly remember Twitter and issue a bombardment of tweets, and on those days when I'm able to keep online continuously, I approach what I imagine to be normal Twitter behaviour, i.e. occasional tweets throughout the day. I've discovered I need some tools, in my case Twhirl, a Twitter client for my PC, and Gravity, which does the same for my Nokia N series phone. Technically all this has worked fine and cost me nothing. You might wonder what Twitter gets out of this and at the moment the answer appears to be a massive amount of traffic for no reward whatsoever. The people behind Twitter know they have to capitalise their success by 'monetising' their offering, although how they are going to do that is nobody's guess.

Typically those who don't use Twitter find it hard to understand why anyone would want to tweet and what they would find to tweet about, and that's quite understandable because tweeting is not normal human behaviour, at least not for me. Twitter itself suggests that you answer the question 'what are you doing?' in 140 characters or less, and that's where most people start. This is a bit like a Facebook status posting so, like many people, I configured Facebook to pick up my tweets and display them on my profile page.

Sometimes what you are doing is interesting to other people, not because they need to know but because what you do gives away a great deal about what it's like to be you. From the early days of Facebook, I have been fascinated by what people have for dinner, watch on TV, read in the bath, do at weekends, etc., just as much as I want to know what they're up to professionally. You don't get this information from a presentation, a report, even a blog, yet somehow it brings you much closer to the real person - you feel like friends, even if you've never met.

Once you have a relationship with your Twitter network, you can start to be a little more demanding. In my case that means asking questions - how do you do this? what is your experience of that? Replies come back in minutes and certainly much more quickly than you'd expect from a blog or forum posting, but you need quite a large network to maximise your chances of receiving useful responses.

Of course this works two ways and the old cliche that you only get out of anything what you are prepared to put in certainly applies here. When someone asks a question and you can contribute a useful answer then of course you must. And if you've found a gem of a website, blog posting, video or whatever then you should share it.

As a learning and development professional it is obligatory to ask whether Twitter has potential as a learning tool. I'm not sure. It doesn't, for me at least, have the power that blogging does as a stimulus for reflection. It doesn't offer the potential for collaborative work that a wiki can provide. Nor is it likely to be as helpful in locating and sharing expertise as an enterprise social networking tool. But I'm sure it can work alongside all these and other tools and I would certainly never discourage the use of Twitter in a learning context.

In summary, Twitter is providing me with plenty of value, so I'm sticking with it. As someone who works from home, it keeps me in touch with a wide range of like-minded professionals. Whether the benefits I've found are universal, I couldn't possibly say. So, if you're not already tweeting, then you're going to have to find out the same way I did.

Ten rules for great e-learning content

It's easy to make a subject complicated - you just keep adding detail upon detail, making no distinction between what really must be known, what probably should be known, and what could be learned if only there was the time. It's much more difficult to make a subject simple, because this requires a great deal of editing and self-discipline, but it's always worth the effort.

I've set myself the challenge of articulating, in ten simple statements, the essence of what instructional designers learn in a two-year masters degree and through many years of experience - how to design interactive online content that really works. Why have I imposed this challenge on myself? Because more and more people, including generalist trainers and subject experts, are confronted with having to create learning content and don't have the time, patience or inclination to wade through endless text books or engage in lengthy courses of study.

So, here are my ten rules for great e-learning content, submitted on the basis of my own experience. I'm sure you'll let me know if I've got it wrong.

1. **Structure into modules**. Keeping your content modular will make it easier for learners, curriculum designers, and perhaps even intelligent software to make use of your content in a wide variety of contexts. I know most so-called 're-usable learning objects' don't get re-used, but more often than not that's because the content wasn't properly designed for modularity.

2. **Restrict each module to one main idea**. That's enough for most learners to cope with in one session; if they really want more, they can always open another module. One main idea clearly doesn't mean one screen containing a single statement (although theoretically it could). It means that one main idea is what you want the learner to walk away with, along with - if you're lucky - some supporting detail, arguments and examples.

3. **Hook the learner in**. Without the learner's attention, you're pretty much wasting your time. You could use shock tactics, surprise or humour, but usually it's enough to demonstrate that the content can offer something valuable for the learner (and believe it or not, a list of learning objectives doesn't achieve this). Ideally, you'll be able to elicit an emotional reaction from the learner, because that way the content will be much more memorable.

4. **Build on the learner's prior knowledge**. If you present learners with material that they already know, they'll be bored and could feel patronised. If you present them with new material that isn't related to their past experience, it will be hard for them to connect with. So, use activities and examples that help the learner to relate your ideas to what they already know.

5. **Present your idea clearly and simply**. You may be able to accomplish this using text alone, but many ideas will be more easily understood with the help of images, animations, audio or video. It goes without saying that media should be chosen for their ability to aid understanding and memory, not because they impress. Don't mix verbal elements - text and speech - or visual elements - say video and graphics - on the same screen, as this does far more harm than good.

6. **Eliminate all unnecessary detail**. Make it as simple as you can, but no simpler. Extra detail won't be remembered and may interfere with learning of the key point. If a learner (or an over- zealous subject expert) genuinely wants more detail, supply it as additional modules or references to supplementary resources.

7. **Put the idea into context using demonstrations, examples, cases and stories**. Learners, particularly if they're at work, want ideas that are relevant to their current problems, not abstractions. Use plenty of relevant examples and your idea is much more likely to be understood and remembered.

8. **Encourage the learner to work with the idea**. Use cases, problems, exercises, scenarios, simulations or whatever it takes to provide the learner with the opportunity to test out the idea and, where relevant, to build skill. The more realistic you can make these activities the better. Think about whether you want to start with these activities and then develop the idea through a process of reflection and discovery, or use the ideas to build upon the idea once you have already presented it - by and large this depends on the topic and the prior knowledge of your learners.

9. **Assess learning if you can and if you must**. Just because the learner can answer a series of simple knowledge questions at the end of a module, doesn't mean they'll remember anything a day later, let alone a year; however, we know managers often want to see some

Ten rules for great e-learning content (cont.)

record of achievement and that may well go for some learners too. If your module is addressing higher levels of learning and you can devise challenges that can assess this, then that's great, but make sure you have a plan to help learners who fail the challenge.

10. **Bridge to the next step**. Interactive materials are rarely an end in themselves. Consider how the learner will be able to provide feedback on the materials or ask any questions they may have; provide a mechanism for discussion of the content, by whatever medium; and don't forget to provide links to any supplementary materials.

Happy designing. You'll be pleased to learn there's no test, other than in the real world.

Web conferencing: a technology whose time has come

It is about ten years now since I received my first demo of web conferencing software as a tool for learning and development, or a 'virtual classroom' as we called it then. It was Centra 99, an early version of the tool now marketed by Saba, but very similar in terms of functionality to today's product. The problem was, we were attempting to run it, VOIP (internet telephony) and all, from a 28.8K dial-up connection; and, with no real conception of the internet as a communication tool, we couldn't quite work out what we were supposed to do with it. Poor bandwidth meant that for many users the experience was unreliable at best, traumatic at worst. Those who did manage to overcome all the obstacles and make a connection were subjected to the ultimate sleeping pill, endlessly bulleted PowerPoint slides, online style. This was a technology ahead of its time, both practically and culturally.

Well, what a difference a decade makes. First, the pressures to make use of technologies like web conferencing have increased dramatically. We haven't the time to undertake all the travel that's needed to meet up constantly face-to-face; we certainly haven't got the money; and we're losing the will, because we know what harm unnecessary travel does to the environment. Leaving aside any of the benefits of web conferencing, these pressures alone are causing half the organisations in the world to look for ways to run meetings online. Learning and development people will not be able to resist this transformation.

And of course the technical obstacles are falling away rapidly. Most people now have access to a broadband connection even on the move. And even if they don't, most of the major vendors allow users to access the session audio through a teleconferencing service as an alternative to bandwidth-hungry VOIP. Better connectivity will also allow us to make much greater use of webcam video, not only so we can see the facilitator, but the participants as well, even if only one at a time. Having a video channel overcomes the main complaint about web conferencing, that you can hear but not see who you are meeting with.

And as employees become familiar with using web conferencing for their remote meetings, they are going to feel completely at home using the same technology for training. L&d professionals may feel a little more wary, but they needn't be.

They'll find that once they've participated in a few webinars (online seminars) - and there are plenty of free ones available for those working in l&d - the technology ceases to be a barrier and the opportunities begin to become obvious. In other words, you can't evaluate web conferencing as an abstract concept, you simply have to experience it for yourself.

Trainers should be encouraged by the fact that the virtual classroom is not so different from the real one - the experience is live and it's collaborative; you can show slides, visit websites or demonstrate applications; you can run break-out sessions, brainstorm with a virtual whiteboard, conduct polls, quizzes and discussions. The learning curve for online trainers may not be steep, but it will still leave many a little short of breath. Most will find it worth undergoing some training or coaching, not just in how to use the web conferencing tool, but in how to use it with confidence, both imaginatively and effectively.

It's important to recognise that web conferencing is just a medium and, as such, is completely agnostic when it comes to educational and training methods. If you're a highly didactic teacher, who likes to lecture and stay in control of things, then the software is not going to object. Equally, if you want to engage your learners in a more collaborative or exploratory experience, then no-one's stopping you. Similarly, the software is neutral when it comes to numbers – it's as happy hosting a one-to-one coaching session, as it is a product launch for 1000 customers.

Web conferencing provides access to experts from afar, at a fraction of the normal cost; it allows you to record sessions so learners can access them later for reference; it incorporates a text chat 'back channel' which allows learners to interact with each other without interrupting the facilitator; and it doesn't mind if you slip away for a moment to handle an urgent request. Yes, in some ways, an online session has positive advantages over its face-to-face equivalent. Now no-one's suggesting that these advantages will win the argument in every case, but we should expect at least 10% of all formal training to be conducted this way in the near future, as is already the case in the USA. Yes, web conferencing is a technology whose time has most definitely come.

What it means to be a learning professional

You wouldn't hire an interior designer only to inform them that you've already chosen all the colour schemes and furnishings for every room; you wouldn't engage an accountant and then explain to them the way you wanted them to process your figures (unless of course you worked at Enron); you wouldn't employ a fitness trainer and then tell them what to include in your workout; you wouldn't buy a dog and then insist on doing all the barking.

So why, then, do we continue to encounter situations in which line managers tell the guys from l&d exactly what they want in terms of learning interventions, with the expectation that they'll simply take those instructions and run. You'd like a 6-hour e-learning package to train customer service staff to sell over the telephone? A 2-day workshop to teach every detail of a new company system to all employees, regardless of whether or not they will be using it? A one-hour podcast to teach manual handling skills? No problem. That's what we're here for, to meet your requirements.

Hang on a minute, you're probably thinking. This isn't an encounter between a professional and a client, it's simply order taking.

When asked to jump, a professional doesn't say "how high?" They say, "Let's talk about this a little, because jumping may not be the best solution in this situation." If this tactic doesn't work and the professional is told in no uncertain terms that jumping is the only acceptable option, he or she has two choices: either they resign and get another job where their role as a professional is valued; or, because resigning is not such a good option in the current job market, they agree to go ahead, but only after having expressed quite clearly in writing that jumping is against their best advice.

Learning and development isn't common sense; it isn't intuitive. If it was then experts wouldn't lecture at novices for hours on end; they wouldn't insist on passing on everything they know, however irelevant, however incomprehensible. That's why we have l&d professionals, so they can explain, in terms that the lay person can clearly understand, how people acquire knowledge and develop skills, and how best to support this process. If the customer doesn't hear this advice, they will assume that the people in l&d are just the builders, not the architects; and, if no-one seems to be offering architectural services, they'll do it themselves.

A learning professional will be pretty savvy when it comes to how people learn at work. They'll know that different situations require different responses, sometimes on-job, sometimes in a classroom, sometimes one-to-one, sometimes using e-content, and often a well-crafted mix of all these. They'll know that adults like to have control over their learning; they want it to be relevant to their current problems, interactive, collaborative and timely. They'll know how difficult it is for significant new learning to take place, how easy it is to overload people with information, and how fearful adults are of embarrassing themselves in front of their peers. They'll know the importance of visualisation, story-telling, questioning and feedback. They wouldn't countenance these principles being over-ridden.

I've heard far too many feeble excuses from l&d people about the reasons why their courses are so dull and un-engaging. "Don't blame me", they say, "it's what the management wanted." OK, but you've taken the qualifications that enable you to put those magic letters after your name. You've obtained professional status, with the associated salary and recognition. But, I'm sorry but that's not enough. To be a professional, you also have to behave like one.

Slides without presenters

I recently put together a SlideShare version of my presentation on the e-learning skills gap and it got me thinking about how slide shows have evolved over the last few years as a new form of stand-alone content. At first, the idea doesn't make much sense - after all, what use are visual aids without the presenter that they are supposed to be aiding? If you can simply upload your presentation slides and they make perfect sense on their own, it doesn't reflect well on your slides - chances are they were functioning as a sort of public teleprompter or what Nancy Duarte calls in her book *slide:ology* a 'slideument'.

The key is to approach the stand-alone slide show as something quite separate from a live presentation, which usually means significant adaptation. It also means choosing the most appropriate delivery format. Here are some of the options you have available:

PowerPoint to SlideShare: SlideShare is essentially a text and graphics medium - it converts your slides to a simple sequence of still images, which can be viewed on the SlideShare site or embedded in another blog or web page. This is a simple, low bandwidth solution but with a big implication in terms of the way you adapt your slides. Without narration, you need to ensure that there is sufficient text on each slide for the presentation to make sense. For the presentation that I was putting together I had to create a special panel along the top of each slide for the narrative. This did work fine, but for some, more complex presentations with busier slides this might prove more difficult.

PowerPoint to Camtasia to video to YouTube or mobile devices: The end product here is a video consisting of your slides plus a narration. The tool I use for this job is Camtasia, but there are undoubtedly alternatives. This option has several advantages: you get to use an auditory as well as a visual channel; any animations in your slides are retained; you may not have to alter the slides from the original; and you have plenty of alternative ways of distributing your content. On the other hand, your slides will be heavily compressed and displayed in a small window, so complex or text-heavy slides won't work. You also lose that handy self-pacing which comes with the SlideShare option.

Prezi to Camtasia to video to YouTube or mobile devices: Of course PowerPoint isn't the only way to make a presentation these days. Prezi drops the slide show metaphor and instead provides you with a giant canvas onto which you can drop all your presentation material. You can then pan around this canvas, zooming in on text, images, videos and other multimedia objects. Prezi outputs to Flash by default and so can be easily designed to stand alone as an online resource. However, it's tempting to turn your Prezi presentation into a video, using Camtasia or some similar screen capture tool, add a narration and then distribute it to all the places that videos can go (which is just about anywhere). For a great example of this approach, see Patrick Dunn's excellent piece on creating engaging elearning, displayed as a series of four videos on blip.tv.

PowerPoint plus Articulate/Adobe Presenter to Flash to LMS/web site: This option provides you with the richest and most interactive end result. By using a PowerPoint add-on such as Articulate or Adobe Presenter, you can extend your original presentation to include narration/video, questions, surveys, links and supporting documentation. The end result will be hi-res and high quality, but may also require considerable bandwidth. You can upload the output to an LMS (with SCORM interoperability if you need it), to an intranet or to any other website that you control, but you won't get the mass coverage you get on YouTube/SlideShare or through mobile devices.

Live to video: This one's so obvious it often gets forgotten. You simply video a presentation live and in person and that's it. Of course it's not always that simple. To display the slides legibly, they probably need to be added in as part of the editing process rather than just shown in the background. You'll also want to make sure that you take a direct feed from the presenter's microphone, rather than relying on the one that's built in to the camera.

As you read this, there are probably more options coming to light. In most cases you'll just have to choose the one format that works best for you. However, if your presentation's a real corker then hey, why not go for them all?

p.s. At the time of writing, my presentation on SlideShare about the e-learning skills gap had received 3500 viewings, so the effort is certainly worthwhile!

Live online learning is the bridge

Live online learning is hardly a new phenomenon, with a heritage extending to some ten years or so. While its use is widespread (as much as 10% of all formal training in the US is carried out this way), it can sometimes be held back by the multitude of labels by which it is described: remote instructor-led training, synchronous e-learning, virtual classroom training, and so on. What we're talking about is the use of web conferencing tools such as Cisco Webex, Adobe Connect, Saba Centra, Microsoft LiveMeeting and Elluminate, as a medium for live, online learning events. It doesn't help that the same technology is also used for online presentations (a.k.a. webinars) and online business meetings. We're talking learning here; the sort of learning you would find in a bricks and mortar classroom, just online.

The efficiency arguments for live online learning are pretty obvious, particularly in the current climate: it's much cheaper in terms of travel and subsistence costs; participants waste less time travelling to a central location; it's more environmentally friendly; and it also encourages shorter training sessions.

You may be sceptical about whether online training can be as effective as its face-to-face counterpart. Well the evidence seems to point to the fact that it's what you do in a classroom (physical or virtual) that's important, not whether your instructor is right there in front of you or appearing on your screen and through your headset instead. You could even argue that live online training could be the more effective option. After all, sessions can be held as soon as the need arises, without having to wait for participants to gather in a central location; it's easier to attract the participation of experts who are geographically dispersed; a greater degree of anonymity makes it easier for more retiring participants to contribute fully; and the ability to record sessions makes it possible for those who miss the live event to still gain some benefit.

If you are experiencing widespread resistance to the idea of self-paced e-learning, you could also consider using live online learning as a bridge. When you move from instructor-led interventions in the classroom to self-paced content accessed online, you are making two major changes at once: not only are you shifting the medium (from face-to-face to online) you are making an even more substantial change to the method (from instructor-led to self-paced learning). This could be inappropriate for several reasons: the contrast between old and new could be too much for employees to cope with at once; you have two change programmes to manage simultaneously – all the cultural issues associated with the change in method, plus the technical issues related to the use of new technology; not to mention the possibility that your l&d professionals could be completely out-of-sorts with such a stark change in their skill-set.

So, a better strategy for increasing the use of online learning could look like this: first you introduce web conferencing as a way to top and tail what are substantially classroom-based interventions; you run a welcome session a week or two before the face-to-face event, and run a wrap-up session a few weeks after. You then gradually introduce more self-paced online activities between the welcome session and the event (some reading, videos, podcasts, web research, perhaps a questionnaire), and similarly between the event and the wrap-up. Ultimately, you could consider removing the face-to-face event altogether as the centrepiece, assuming it is not absolutely essential, and replacing this with more live online sessions, some structured e-learning, perhaps even some collaborative online activities using forums, wikis, etc.

Shifting some of your training sessions online could save you a fortune, help you to spend more nights in your own bed and perhaps even save the planet; but all those savings are futile if your online events are not as great as those you conduct face-to-face. If you start out with the assumption that communicating online is second best to being face-to-face then your prophesy is guaranteed to come true. Live online events can be spectacularly successful, but that doesn't mean that you won't need some training, online or otherwise.

A new emphasis for live events

If you are an active internet user, then you will have been a witness if not an active participant in the dramatic changes that we have seen over the last few years as a result of web 2.0 technologies. Increasingly everyone is a teacher as well as a learner; nobody knows everything and everyone knows something. As George Siemens pointed out in *Knowing Knowledge*:

"Mass media and education have been largely designed on a one-way flow model. Hierarchies, unlike networks and ecologies, do not permit rapid adaptation to trends outside of established structure. Structure is created by a select few and imposed on the many: The newspaper publishes, we consume. The teacher instructs, we learn. The news is broadcast, we listen. Now we are entering a two-way flow model, where original sources receive feedback from end-users, we need to adjust our models to fit the changed nature of what it means to know."

And computer games have had their effect too. According to William Winn, digital natives "... think differently from the rest of us. They develop hypertext minds. They leap around. It's as though their cognitive structures were parallel, not sequential."

And, as Mark Prensky makes absolutely clear in his book *Digital Game-Based Learning* (McGraw-Hill, 2001): "Traditional training and schooling just doesn't engage them. It's not that they can't pay attention, they just choose not to. What today's learners really crave is interactivity - the rest basically bores them to death."

These developments have really come home to me lately as I have been participating in the design of a series of face-to-face conference events for the eLearning Network (eLN). In the past, a typical UK conference event would be designed according to the following proportions:
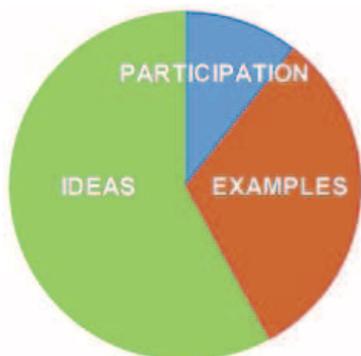

By 'ideas' I mean presentations from gurus, experts and thought leaders, primarily abstract in nature. By 'examples' I mean case studies from users, sharing successes and lessons learned. By 'participation' I mean opportunities for attendees to interact with each other to explore the ideas, share their own experiences and make contacts that they can then follow-up after the event. As you can see quite clearly, the traditional pie is cut heavily in favour of ideas, with only a nominal allowance for participation.

But the days when people were content to attend a training course or a conference and just be talked at are fast disappearing. As e-learning professionals at the eLN, we have always been conscious of the importance of meaningful interactivity in the content that we create, but we've not necessarily followed this through face-to-face. As Kevan Hall of Global Integration stated in the last issue of HCM magazine, "Passive consumption of information is not a good enough reason to get together these days." When so many wonderful resources are available online, you'd have to agree.

So, here's how I'd like to see the pie cut in future live events, whether that's face-to-face or online:
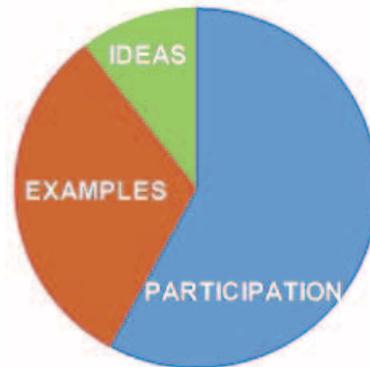
Ideas are important, but they need to be backed up by concrete examples; they also need to be thoroughly explored to ensure their validity and their relevance. That requires debate, discussion, reflection, experimentation and feedback. Too many ideas and all you get is cognitive overload - most likely you go away with nothing.

Of course, these proportions are as important in the design of training events as they are for conferences and webinars. Too often, there is an abundance of theory, a few quick demos and nowhere near enough time allocated to practice. The exposition of theory is best accomplished self-paced; if you're going to get a group together live, it seems plain daft not to take advantage of the situation. People love to talk, to share experiences, to make friends and to explore ideas - all you have to do is let them.

Time to ditch the Hollywood model

I can understand why, in the early days of e-learning development (that's long before it was called e-learning), the ADDIE model would seem particularly attractive. After all, it's hard to argue against the sequence of analysis then design then development then implementation then evaluation - it's logical enough and is probably applied in one way or another in a wide range of human endeavours. The problem is not with the ADDIE bit, it's with the idea that the five stages have to be applied in strict sequence with no iterations; it's a 'waterfall' process - the water can flow down but never back up again.

ADDIE is a fruitless quest for perfection that only rarely achieves anything other than mediocrity. Real-life doesn't arrange our projects so all the important contextual information becomes evident right up-front and then never changes; it doesn't ensure that all the good ideas pour out in one burst and then dry up completely; it doesn't guarantee that the best ideas can be made to work technically; and it certainly doesn't ensure that real users will like them when they finally get to see them. ADDIE requires perfection at every stage and as a result will always be frustrated.

As Michael Allen makes clear in his *Guide to e-Learning* (Wiley, 2003), any improvement on ADDIE must start with the assumption that there is no such thing as a perfect learning intervention, only an ongoing quest to get closer and closer to something that works consistently with real users. Those who work in the classroom can teach instructional designers a thing or two; they don't spend endless hours in analysis paralysis trying to predict exactly what will happen at every point in their face-to-face workshops - they put together a quick and dirty design, give it a go and see what happens. The first offering will probably be a little shaky, with some ideas working and others not. No problem, because next time the design can be tweaked, and the next time and the time after that. The design of face-to-face events is a process of rapid prototyping, of continuous user testing and ongoing improvement through what Allen calls 'successive approximation'. With a little more caution, to ensure resources aren't wasted

needlessly, e-learning development can be just the same.

It's easy to see how we got to the waterfall approach to ADDIE. After all, if you'd been paying tens of thousands to have a large team of external specialists design and develop an e-learning course for you, then you'd have wanted to make sure those resources were efficiently used. In particular you'd have wanted to minimise the re-work and, in the days when much e-learning had to be hand-coded and multimedia (audio, video, photos and illustrations) was produced offline in the analogue domain, you can understand why. Creating e-learning was like producing a Hollywood movie – 90% planning, 10% doing. But there's a downside to this approach. Most Hollywood movies fail, not because they aren't well produced, but because they don't grab their audience in the way that their producers expected. Much the same can be said of traditional e-learning – looks really good, but doesn't really give learners what they want.

It would help if the e-learning development process was modelled less on Hollywood and more on software development, which to some extent is what e-learning is. In most cases they stopped using the waterfall process for software development years ago, shifting the emphasis to a more user-centred approach built on rapid prototyping and continuous refinement. At a recent software conference, one of the keynote speakers asked the 800+ members of the audience, "So, who out there still writes specifications?" Three very nervous people raised shaky hands, to some laughter.

If we are not to bore the pants off half the world, instructional designers must rid themselves of what award-winning designer Patrick Dunn refers to as their 'creatocidal tendencies', their drive to kill creativity. With online design, development and delivery all entirely in the digital domain, elearning no longer needs to model itself on Hollywood. We now have the tools that allow us to prototype rapidly and make changes based on ongoing user feedback. E-learning can be as responsive as the classroom, and about time too.

Clive Shepherd is a consultant specialising in the application of technology to education, training and employee communications. With more than twenty five years of experience in this field, Clive is acknowledged as a thought leader in all aspects of e-Iearning and blended learning.

Clive developed his interest in interactive media at American Express in the early eighties, where he was Director of Training and Creative Services. He went on to co-found Epic, a leading content developer, in which he played a variety of management roles.

Since 1997, Clive has worked with a wide range of public and private sector organisations on the application of technology to learning and employee communications. In 2003 he received the Colin Corder Award for services to IT training, and in 2004 the award for Outstanding Contribution to the Training Industry at the World of Learning conference.

In the last few years, much of Clive's work has concentrated on the training of trainers to take an active and enthusiastic role in the implementation of e- and blended learning in their organisations.

Clive is also an active and enthusiastic designer of e-learning and blended learning interventions. His course *Ten Ways to Avoid Death by PowerPoint* won the prize for best generic e-learning programme at the World of Learning Awards 2004. His blended learning design for an international management development programme at Plan International won a National Training Award in 2008.

Clive's writing on e-learning can be found in his books and more than 100 published articles. He has a monthly column in IT Training and e.learning age magazines and posts regularly to his blog, *Clive on Learning*. He is also a regular speaker at UK and international conferences.

Clive is Chair of the eLearning Network and a founding director, with Barry Sampson and Phil Green, of Onlignment Ltd.

He lives in Brighton with his wife Susan. When he gets away from all things e-learning he likes to walk on the South Downs, play tennis and keep fit generally. He's also a keen musician.

Also by Clive Shepherd:

E-learning's Greatest Hits
ISBN: 0-9545904-0-6
Above and Beyond, 2003

Learning Object Design Assistant
ISBN: 0-9545904-4-9
Above and Beyond Ltd, 2003

The Blended Learning Cookbook
ISBN: 0-9545904-8-1
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The Blended Learning Cookbook Ed2
ISBN: 0-9545904-7-3
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Clive's Columns Vol 1 (e-book)
Fastrak Consulting, 2007

What every learning and development professional needs to know about e-learning
(with Laura Overton)
Towards Maturity Enterprises, 2009

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