

# E-learning and transformation in companies

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## We have only just begun

Anyone working in the field of e-learning would agree that the discipline is still in its infancy. Organisations experimenting with it, whether as content producers, technology developers, or as users of both, must consider themselves merely apprentices. In the stage we are at now, the primary objective is to learn about the possibilities as well as the limitations of e learning.

Data on the success and failure of e-learning is confusing. In the specialised media, the good news gets mixed up with the bad, depending perhaps on the interest a particular medium has in painting a bright or a gloomy picture of the field.

Thus we find articles claiming that companies are beginning to see results, alongside others stating that many e-learning initiatives, especially those in the prestigious American universities, are already declining and losing backing.

The slow down in business trips after the events of September 11<sup>th</sup> is cited as an important reason why many companies have begun to explore the possibilities of e-learning as an alternative to traditional methods. After 9/11, courses for health care professionals on bio-terrorism were being improvised throughout the United States, demonstrating the important impetus the U.S. government and military have had in the field. Thousands of people, spread all over the continent, or even all over the world, were in need of continuing education.

The University of Phoenix (<http://www.phoenix.edu>) is also often cited in this context. Their technological training courses have achieved a student base of some 40,000 enrolments thanks to a combination of branding, marketing and infrastructure. Here is one of their slogans:

**WE HAVE A NAME FOR PEOPLE WHO DIDN'T THINK  
THEY COULD COMPLETE THEIR DEGREES: GRADUATES.**

Despite this positive data, universities that thought that all they needed to do was to put content on their websites and wait for students who were willing to pay hundreds of dollars to use them to appear have been disoriented, to say the least. New York University has closed its NYU-Online, after only managing to enrol 500 virtual students, despite the university's 25 million dollar investment in the initiative. Virtual universities, such as HungryMinds or the California Virtual University, have

been dismantled or sold. Columbia University has decided to halt investment in Fathom (<http://www.fathom.com>), one of the initiatives that I liked the best.

### **What works?**

Some people are saying that e-learning is predicted to be the next “killer application” on the Internet, after the popularity of e-mail and searching engines.

E-learning has many definitions, possibly because there is no single type of e-learning. However, a general definition that would cover many of its variants would be that it involves learning carried out via web technologies. This can take place either asynchronously (with the student and the source separated in time, as in self-teaching) or synchronously (the student and the source connected in real time, as in a virtual class).

The advantages of e-learning are apparent, since it allows for:

- 1) individualisation (each student can define his own “learning path”, and his individual development can be monitored),
- 2) interactivity (a direct relationship can be established between teachers and fellow students),
- 3) up-to-date content (especially important when this can rapidly become obsolete),
- 4) and a wide range of support activities (supplementary teaching material, virtual events, etc.).

Today, many are suggesting that the line between e-learning and knowledge management is blurring. Both cases involve organised knowledge which is accessible to anyone who wants to use it to learn. In the case of knowledge management, increasing importance is being given to access to experts who can respond, whether in real time (just-in-time) or asynchronously (when they have time), to specific questions raised by a particular user, while in e-learning, the content has been previously structured (just-in-case) with a particular educational aim in mind.

In addition, the technologies used in both systems are becoming ever more similar. The differences between e-learning and knowledge management currently lie in the following points:

- 1) The evaluation of knowledge, an essential characteristic of e-learning, is not usually present in knowledge management. Learning has traditionally been associated with a final evaluation (“show me what you have learnt”).
- 2) A greater pedagogical effort is made in e-learning (interest in ensuring that the material is comprehensible), as opposed to the simple presentation of content typical in knowledge management.

- 3) Generally speaking, different departments deal with each of the two areas. E-learning today is in the hands of human resources, while knowledge management is frequently under the control of systems management.

Without a doubt, online training is working in some cases. A recent report by LGuide outlined the 10 subjects which appear to suit the e-learning process best (information technology, especially in office word processing applications, and straightforward management skills, such as negotiation and time management). See the list at <http://www.lguide.com/reports/tencritical.cfm>.

It seems that most experts agree that what works best are brief training programmes aimed at rapidly fulfilling a need. In other words, just-in-case learning is difficult to justify to the student ("one day this will come in handy"), while just-in-time learning ("when you finish this module you can immediately put into practice what you have learnt") wins hands down over the former method.

### **Designing the learning experience: The essentials**

Much of what is available on the Internet today is not e-learning; it is simply e-reading.

Its effectiveness is thus limited because apparently as intelligent beings, our ability to learn from simply reading is inefficient (we can understand something while reading, but it is more difficult for that knowledge to become embedded in our consciousness).

Some experts assert, along with Aristotle, that we learn by doing.

Thus, the design of a learning experience, either offline or online, must be based on the idea of learning by doing. Key elements in this design are:

- 1) The identification of the specific gaps that need to be filled (learning needs);
- 2) A clear definition of aims;
- 3) The definition of a learning path in which a student must decide among options, so they can learn by making mistakes;
- 4) Access to a "master" who can help out when a student makes a mistake; and
- 5) Some kind of reward when the learning objective has finally been reached.

With this in mind, simulations are an interesting solution. This is the approach taken by companies such as Cognitive Arts (<http://www.cognitivearts.com>) and Schank Learning (<http://www.schanklearning.com/>), both the fruit of Roger Schank's vision.

Among other interesting consequences of the movement towards simulations is the fact that content production has evolved away from the traditional classroom and

toward the television studio, making a simulation course more like Hollywood and less like Cambridge.

According to Schank, the educational methods that work are the following:

### **Methods that make sense, according to Schank**

- Students design and construct something **by themselves**
- Learning based on **errors** committed in realistic situations
- Memorising data should be done as a **means to achieve** a task
- **Realistic simulations** in which students learn by doing in life-like situations
- **Experts available** when you need them (“master”)
- **A fun** learning experience!

## Métodos con sentido, según Schank

- Los alumnos diseñan y construyen algo **por si mismos**
- Aprendizaje basado en **errores** cometidos en situaciones realistas
- Memorización de datos cuando deben obtenerse como **medio para** conseguir un objetivo
- **Simulaciones realistas** en las que aprendes haciendo, en situaciones casi idénticas a las reales
- **Expertos accesibles** cuando los necesitas (“maestro”)
- Y aprendizaje **divertido!**

(See: [http://www.schanklearning.com/good\\_design.html](http://www.schanklearning.com/good_design.html)).

The importance of a tutor in the learning experience has also proved critical, especially given the fact that one of the main reasons students cite for quitting online courses is their sense of isolation.

Additionally, in my opinion, it is essential to increase active student participation, whether through group work, or through the participants' evaluating a course. I can envision, for example, an active course that can be framed in terms of achieving an aim that requires a division of labour among participants as well as an exchange of questions and answers whose utility and quality can be evaluated by the students themselves.

In the real world, outdoor training exercises in which a group must co-ordinate efforts in order to complete a task have proven successful (see this example, where the training “vehicle” was in fact a racing car, <http://www.auladirecta.net/system/castellano/train.html>). In some cases, we should perhaps do the same, but in a virtual context.

### **The medical check-up metaphor**

In a recent seminar at Infonomia.com, Iñigo Babot told us about what he had seen on a recent trip to MIT and the Monterrey Technological Institute in Mexico.

It struck me that one of the most interesting ideas was that online learning will probably be most interesting for continuing education courses. Each person will be able to carry out a kind of educational check-up in which they will be able to judge their learning needs (cultural, educational, instrumental, etc.). Then a prescription can be drawn up: “Now you should learn this, keep up-to-date on that, etc.” One way of keeping up-to-date could consist of a regular dose of individualised distance learning.

I think this is a very powerful idea that links to something I believe will become essential in the e-learning world, perhaps more important than the content itself, or the technological platforms distributing content, and that will be the assignment of time slots which can be dedicated to learning.

Time to be spent systematically dedicated to learning should be written down in blood in each person’s diary. Also, organisations should define policies that make it clear that when someone is learning he should not be disturbed.

These learning moments can be devoted to all kinds of learning activities, in the broadest sense of the term, such as navigating on Internet (purposively, in search of information crucial to the completion of a task), asking or answering questions in a knowledge market (internal or external), digesting prepared content or, increasingly, preparing your own learning materials, in order to share your knowledge with others (within and outside of the company, depending on individual cases).

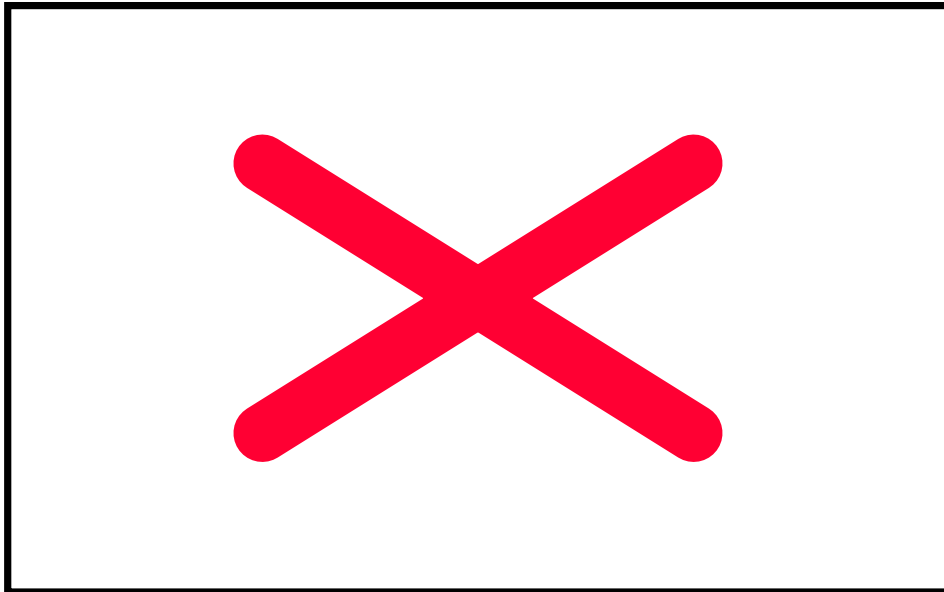
### **LMS Platforms**

Every new information-related field has been accompanied by a new type of tool, and e-learning is no exception. Once there is a pedagogical model, a tool is sought which will permit the combination of learning objects in order to distribute them to students and monitor their degree of participation and learning. Such a tool has been christened the LMS (learning management system).

When I used the term "objects" here, I did so deliberately. If one thing is clear in the current view of e-learning, it is its reliance on content modules, that is, on packages with a concrete learning aim that can be combined (reused) in order to form a specific learning path. Thus, every object can theoretically be used in different paths. For an excellent – indeed essential – argument for this idea of "reusable learning objects", see David Wiley's Reusability webpage (<http://www.reusability.org>).

An LMS must have at least four components: a repository of learning objects (content modules regardless of format), a tool for combining contents (a publication module), a distribution platform for the content (i.e., a system that allows learners to access this content however they choose), and an administrative system (for registering in courses, monitoring progress, evaluation, etc.).

An excellent explanation of the essential components of an LMS can be found at the WBTSystems website (<http://www.wbtsystems.com>), which are illustrated below. The basic components of their product (the TopClass e-learning suite) are supplemented by a Competency Management system (what each person should know in order to fulfil his role) and a skills gap analysis, which theoretically allows us to identify the training a particular individual needs in order to fulfil a certain function.



After registering on the WBTSystems website, you can also download free of charge a digital copy of a useful IDC white paper on the characteristics to look for in any LMS (<http://www.wbtsystems.com/products/whitepaper-lcms/request>).

The basic concept of an LMS and what you might expect from one is quite clear. The problem, perhaps, is how to choose from a range that is quite extensive in scope. There are several useful tools to help you do this:

- 1) One of the best reference sources in the e-learning field is LGuide (<http://www.lguide.com/>). There you can find a document, available free of charge, that lays out the main selection criteria for an LMS: "Ten steps to successfully selecting a learning management system", <http://www.lguide.com/reports/lmsbuying.cfm>.
- 2) A detailed analysis, or technical specification if you like, of the LMSs available on the market can be found at the Brandon Hall website. BH are recognised experts in the field. It is available (for a price) at <http://www.brandonhall.com/public/publications/LMS2002>.
- 3) However, if you want to save yourself some work and go directly to the system that most experts recommend as the most solid, with the greatest number of current and future possibilities, perhaps your best bet would be to acquire Gartner's report entitled "The 2002 e-learning suites magic quadrant" (look for it at <http://www.gartner.com>) at a cost of \$95. That is what I did. Although the report is extremely short (3 pages), it has the advantage of telling you directly the results of his comparative study. The report tells us that the six LMSs with the most promising future are Saba (<http://www.saba.com>), Pathlore (<http://www.pathlore.com>), Docent (<http://www.docent.com>), Thing (<http://www.thing.com>), Plateau (<http://www.plateau.com>), and the above-mentioned WBTSystems (<http://www.wbtsystems.com>). Two criteria were used for the analysis: ease of use (installed base, scalability, potential for integration with other applications, distribution networks, etc.) and the comprehensiveness of the application's vision (ability to individualise the applications for each client, solidity of the architecture, etc.).

## **Contents available**

We now have a training model and a management and distribution platform. Our e-learning system needs content to be complete.

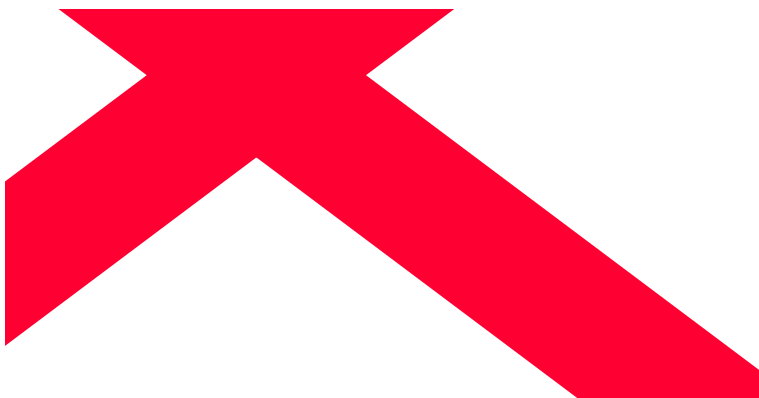
Here there are two basic approaches: you generate the content (the objects) yourself, or you turn to the content market.

In the first instance, what is taking off is authoring tools, software that allows you to create learning objects based, on many occasions, on original documents in various formats (MS Office, audio, video, etc.).

A good example of these authoring tools that I have had the opportunity of seeing in action is Easyprof (<http://www.easyprof.com>). You can download a demo at their website: (<http://www.easyprof.com/eng/demos/login.htm>).

The other option consists in turning to the content market. My impression is that the market is not especially mature. In other words, I believe that companies have not sampled enough of the existing available range to be able to reject the worst of it. At this time, it is easy to get lost in the enormous range of content available both nationally and internationally.

Much of the material available is not, as noted earlier, e-learning, but e-reading. LGuide also has a report where the available material in the United States is analysed. This is available (for a price) at: <http://www.lguide.com/reports/publishers.cfm>. Among the suppliers analysed are those shown in the figure below.



In Spain, there are many sources for e-learning courses. At the risk of omitting some of the important ones, I will just note the PriceWaterhouseCoopers portal [learning.es](http://www.e-learning.es) (<http://www.e-learning.es>), the ICTNet platform (<http://cursosonline.ictnet.es>), the company services offered by the UOC (<http://www.uoc.edu/web/esp/empresa/aprenentatge.html>), the AulaVia platform (<http://www.aulavia.com>), and AulaDirecta (<http://www.auladirecta.net/castellano/index.html>).

More available content can be seen by visiting eMagister (<http://www.emagister.com>) or Aprentia (<http://www.aprentia.com>).

## **Standards**

One thing is clear in the content field: it is becoming essential that content be "SCORM compatible". SCORM (acronym for Sharable Content Object Reference Model) is a standard based on, if I have understood correctly, the requirements of the U.S. Defence Department, one of the major consumers (if not the major consumer) of e-learning in the world. SCORM establishes what characteristics the structure of the content package must have in order to ensure its compatibility with other packages. The current version of the SCORM standard is 1.2.

Checking various suppliers of such packages in Spain would seem to confirm the trend that a package is either SCORM compatible or it is simply not produced.

You can find all you want to know about SCORM on the Advanced Distributed Learning initiative website (<http://www.adlnet.org>).

In fact, on that site there is an enlightening illustration showing the convergence of standards toward SCORM 1.2.



<http://www.adlnet.org/index.cfm?fuseaction=scrompres>

### **Return on investment**

Perhaps the weakest point in this whole field is the method used in calculating the return on investment for an e-learning system. It is true that the manufacturers attempt to present their products' ROI performance, as evidenced by one of the "emerging figures" (in the sense of recent recruitment of important business clients, such as AT&T) X.hlp (<http://www.xhlp.com>). See also the ROI links on their page <http://www.xhlp.com/home.cfm#>.

One article said that an e-learning platform is not justified for a user base of fewer than 4,000 people. If this critical mass is not reached, the ASP model appears to be the recommended option.

Brandon Hall has a report that defines how to construct a business case which identifies the ROI of a company's e-learning strategy. It is available (for a price) at <http://www.grupodoxa.com/e-learningGE.htm>.

Some other articles on this issue are available at Darwin's e-learning resource centre (<http://guide.darwinmag.com/career/education/e-learning/index.html>) and at that of the CIO (<http://www.cio.com/research/e-learning/>).

There is also a useful article suggesting specific criteria at Learning Circuits (<http://www.learningcircuits.org/2002/feb2002/moran.html>). See also: <http://www.learningcircuits.org/2001/jun2001/elearn.html>.

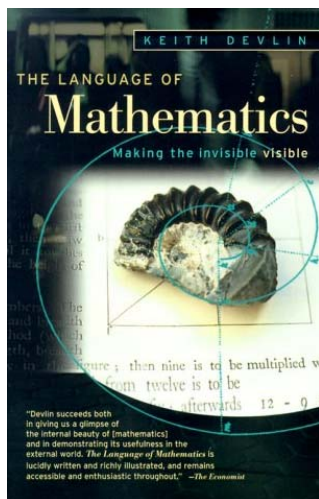
## Learning through story telling

Perhaps because I just cannot comprehend what is going on in the world today (Palestine, LePen, Argentina, BBVA, etc.), and because like so many people the news makes me feel defenceless, I have recently adopted an unexpected survival strategy: I am rediscovering mathematics.

Many years ago maths was my obsession; I spent hours on the subject. I would be lying if I say that I finally understood the heart of the subject, but I believe that I did discover why mathematics is, in fact, a monument to the capacity of the human brain.

Anyway, in the last few months I have been reading fascinating articles on the progress we have made in the field, from the thought-provoking History of Mathematics, by Richard Mankiewicz (Paidos), to the simply fantastic Photographing Mathematics, by various authors (Carroggio).

However, the most edifying, stimulating and powerful read was Keith Devlin's The Language of Mathematics.



In this book I discovered an explanation of the “why” behind mathematics that the university deprived me of. Here I understood how Newton had reinvented the world when he dreamt up calculus, the genius of Gauss or Euler, and how the instrument

of mathematics is possibly the only reliable method by which we can advance our knowledge.

Who with even basic knowledge of mathematics could not be awed by a formula such as

$$e^{i\pi} + 1 = 0$$

in which the main numbers in mathematics are linked?

I remember how at university we had to learn this “because one day it might come in handy,” or simply “because!” But now, as a mature adult, I have discovered the crystal clear fact that I am motivated by finding out what lies behind everything.

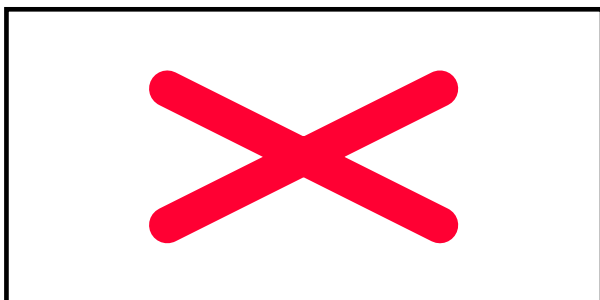
I suppose, at this point, you might be wondering: What does all this have to do with e-learning? Quite a lot, I believe - not the mathematics part but the underlying narrative side.

The basic idea is as follows: knowledge management is not about knowing more, but understanding better. Knowledge without comprehension is only information. Moreover, it seems that human beings “understand the world through story telling.”

The words are not mine; they are David Weinberger’s and are quoted in the interesting, even vital, article entitled “Grassroots knowledge management through blogging” by Nichani and Rajamanickam (<http://www.e-learningpost.com/elthemes/blog.asp#>).

This article stresses the importance of story telling in knowledge management. The idea is that faced with incredible amounts of stimuli in the form of data and information, our brain only responds to things that interest it. In other words, how you say something is as important as what you say.

It was through Devlin’s story telling skills in his history of mathematics that the subject once again engaged me. In other words, faced with a mass of input that washes around your brain (passerby information), the only things that stick are those with powerful “hooks” (as in this illustration from the above-mentioned article), that is, information presented in the form of a story.



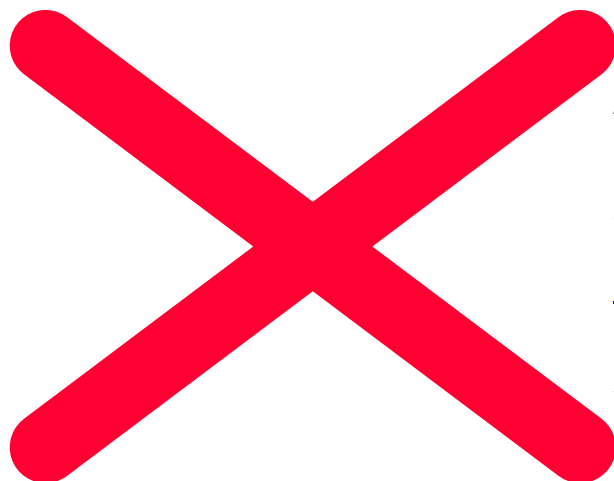
The idea is that a good story is experienced by the reader (or perhaps the audience).

The interesting thing is that some experts in knowledge management, Weinberger among them, suggest that narratives play a fundamental role in the success of knowledge transmission. Once again we see the ever-important role of pedagogy.

We can add to all of this the success of the blogs. A blog (web log) is a kind of web navigator's logbook. They are a kind of personal diary by web surfers of what they have seen, what they have learned and what they think about the content experienced, and they are often passionately expressed.

Blogs represent a halfway point between formal documents (such as reports) and less formal writing (such as e-mails). Like the former, they have content, but like the latter they come in a more attractive form. This is important because recall that we learn when we are having fun (if not, let us not fool ourselves: we only appear to be learning).

There are thousands of blogs in the world. Near Infonomia I found a noteworthy one by Risto Mejide (Monoxido, <http://www.monoxido.com>). There are all kinds out there. At Blogger.com you can find many more (<http://www.blogger.com>). There are blogs about design (see the interesting Xplane, <http://xplane.com/xblog/>).



And there are historic blogs such as AlertBox by Jakob Nielsen (<http://www.useit.com/alertbox/>) which are not officially presented as a blog yet, but as a periodic digital magazine. These are true stories that can motivate you to learn what they are telling you.

Some say that blogs may represent a media revolution, and in my opinion, they are an educational revolution as well.

### **The learning ritual: Learning by making mistakes**

In the current evolutionary state of Internet-related technologies there appears to be much confusion over terminology. Sometimes this confusion ends up as a fight between rival parties trying to impose their favourite term. So, for example, I believe there is now nobody who can clearly distinguish between objectives and limits of concepts such as intellectual capital, knowledge management, or the ever more popular term, e-learning.

At Infonomia.com we do not really care one way or the other; in the end we are talking about intelligent information management (the generation of value through information management). The true revolution in which we are immersed is not purely terminological (it is not a simple matter of a few consultants making a fortune by refusing to budge from their fashionable term), it is far more meaningful than that.

Essentially, what is really at stake is whether we can develop systems to absorb high quality information from the environment with the aim of transforming it into differential knowledge that will allow us to develop innovative products and processes that can better serve a customer with whom we can establish a permanent relationship.

On some occasions the information entering a company is purely factual (such as an increase in consumption of a particular product is detected: people have gone crazy sending SMS messages to television programmes). On others it is purely descriptive (for example a new product design, such as the attractive Palm i705, <http://www.palm.com/products/palmi705>). Finally, in other cases it is procedural (such as a new way of carrying out a surgical operation).

We do not tend to consider factual and descriptive information as learning, while we accept that procedural learning is. In other words, we believe that knowing something new is not learning; it is simply being informed. Developing a skill in order to do something new, on the other hand, is considered learning. To highlight these differences, we can say that in the first two cases, no one measures how your level of knowledge has changed, while when we hear the word learning, we immediately think of the idea of measuring knowledge or skills acquired through a test or an examination.

That is not the only difference between acquiring knowledge and learning. In learning there is usually a greater pedagogical effort: there are learning objectives set out by those preparing the material (interestingly, it is not the person learning who sets the objectives, but those who impart the knowledge; perhaps this is

simply inherited from the powerful master-pupil model that we have had from time immemorial).

We are constantly being told that old ways are doomed now with the emergence of the web. As soon as I can access an array of structured information on my own (something we have always been able to do with a book) with which I can interact, play, explore through simulations, and make mistakes until getting it right, there is no clear line between acquiring knowledge and learning.

To give a specific example: when is a message informative, instructive, or educational? What do we need to do with it to convert it into a lesson for a university programme? Perhaps it is enough to simply present it as such. Labels help define what is purely information and what is education. A book you read because you like it is informative, while the same book read in for a university course is considered educational.

Is it really like that?

Some days ago while at lunch, my intelligent companion (It was a pleasure...) opened my eyes in an unexpected way: for us poor humans, rituals are still very important. Attending a course physically is not the same as taking one from your home. In the latter case, we miss the social ritual of attending class (the teacher imparting knowledge to a social group thirsty for knowledge that only the teacher possesses).

The promise of e-learning as an alternative to traditional learning is called into question by this simple but powerful idea of the ritual of learning. If, as my friend suggested, what really matters is the ritual, that is, the social relationship between people exchanging knowledge at a certain place and time, the purely utilitarian aspect of e-learning may not be sufficient to guarantee its social success.

This is what is being claimed by clear thinkers like David Noble, people for whom education is a social act of building interpersonal relationships. The circumstances of an educational moment are perhaps more important than the content (or to put that in modern parlance, the experience is more important than the outcome). Is it not a fact that what you learn at university is less important than adopting the attitude that serious, rigorous learning is virtuous and fruitful? Is it not also a shame that thousands of people leave university without any motivation to continue learning, recognising on leaving that they are just about to begin to truly learn?

Of course there are also those who are more pragmatic, who believe that true learning takes place on the job, and that there is no better way of learning than doing something.

In these last two weeks I have been able to read an excellent book on the subject that I can heartily recommend. It is called Designing World Class E-learning, by the esteemed theoretician-practitioner of e-learning, Roger Schank.

Roger Schank began as a cognitive theorist, founding the Cognitive Arts Company (<http://www.cognitivearts.com>), and he appears now to be focusing on his new initiative, Schank Learning (<http://www.schanklearning.com>).

Schank's thesis in this book is very simple (and radical): people do not learn by reading or listening, they really only learn by doing.

This message is especially interesting in environments where you eliminate the ritual of learning, say in companies where the aim is to ensure that people learn new procedures relatively quickly. In other words, his message really fits the bill when we are talking about training as opposed to education.

He talks about an employee learning how to sell by selling, learning how to manage teams by managing them, and learning how to serve customers by serving them.

In other words, we must transfer the positive experience of flight simulators (essential for the training of pilots) to other professions.

This e-learning approach is really powerful, among other reasons because the ability to stay attentive to a screen decreases rapidly as time goes by. A game is more attractive and will keep our attention longer. It is also powerful because in a simulation there is an objective to achieve, a personal objective for which one has to struggle. If you fail, you are still motivated to continue the game, and it is by repeating it or questioning experts available online that we finally manage to internalise our learning.

The book scorns many things that have been done to date in the field of e-learning, often involving simply translating thick textbooks into html. It also demonstrates some good practises in e-learning that have been developed over the last few years by his team. You can see some of his main ideas in his principles for good online courses available at [http://www.schanklearning.com/good\\_design.html](http://www.schanklearning.com/good_design.html).

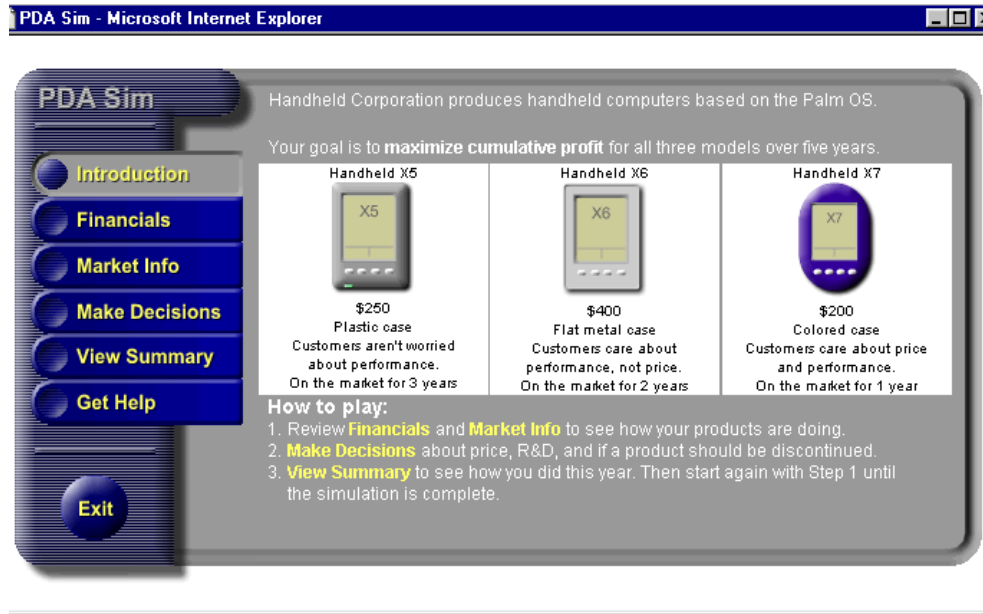
He also sets forth some ideas on how to evaluate the usefulness of an online training course (using a procedure with the acronym Freedom).

In short, Schank certainly knows what he is talking about. His message can be summed up as: let us forget about JIC (just-in-case) learning in favour of JIT (just-in-time) learning. Let us train people when there is a reason to do so and a motivation to learn, and let us turn learning into an emotional experience that is saved directly in the reptilian cortex, if possible (hence the reasons why he strongly argues that simulations should be as realistic as possible).

Schank, then, would consider this text-filled message anti-learning. That is why I do not want to finish this section without suggesting a visit to a place where you can try the power of simulations for yourselves. I am talking about Forio

(<http://www.forio.com>), a well-known firm in this field that became famous some months ago for a brief simulation game for companies called PDASim. In the game, players have to analyse economic and market data for a company developing and selling PDAs (like the Palm, for example).

Try it at <http://www.forio.com/pdasim/index.jsp>



But I have to admit, I am not very sure how I managed it... Proof that simulations are not the panacea.

We will no doubt be talking a lot more about e-learning since it is an important topic within the Internet community. Here, for example, is how it is defended in the digital magazine "Line Zine" (Learning in the New Economy), <http://www.linezine.com>, especially in their Manifesto (<http://www.linezine.com/manifesto.htm>):

"Learning is the premium core process at the heart of what the New Economy is about: performing to the max, going faster, and breaking old rules. The New Economy is also about reinventing community, building talent, searching for meaning in the workplace, and combining the professional with the personal. It's the paradox of values and innovation, and also one of technology and social relationships."

# LiNE Zine Manifesto

by Brook Manville and Marcia Conner

- 1.** We have no more time or patience for trying to distinguish between words such as *training, learning, knowledge, information* and *content*. They are all important, but results trump semantics.
- 2.** There's still room for "learning for its own sake"—but performance-driven and managed learning will increasingly dominate the stage.
- 3.** Metrics of success for the new learning will be traditional financial and performance measures, not fancy, academic concepts.
- 4.** Speed and performance demands in the New Economy will shift starting assumptions from *just in case* generic to *just in time* personalized learning—and that's just fine.
- 5.** eLearning will grow in importance, but will be only one part of the rich mix of choice and mass personalized approaches to learning required by knowledge workers.
- 6.** Technological innovation will accelerate in step with growing emphasis on approaches that understand learning exists in both individual and social contexts. Like it or not, every student's lessons are also relationship-driven and embedded in communities and their organizational cultures.
- 7.** New learning will be pursued cross-boundary, virtually, synchronously, and asynchronously, and be provided by increasingly global marketplaces for content and talent.
- 8.** As identities and boundaries blur, educational institutions will become more like businesses and businesses will become more like educational institutions.
- 9.** The distinction between formal and informal learning will and should evaporate.
- 10.** The Internet will restructure learning processes in multiple ways, many of which cannot be known today.

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What do you think? Challenge the challenges then add your own. Send your comments to [manifesto@linezine.com](mailto:manifesto@linezine.com). Brook Manville is Publisher of LiNE Zine and the Chief Learning Officer of Saba. Write him at [brook@linezine.com](mailto:brook@linezine.com). Marcia Conner is Editor-in-Chief of LiNE Zine and Co-founder of the Learnativity Alliance. Reach her directly at [marcia@linezine.com](mailto:marcia@linezine.com).

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<http://www.linezine.com/manifesto.htm>

## From training employees to knowledge across the entire value chain

The e-learning industry offers a wide range of technologies and services ([http://www.garywjames.com/beginnersguide/beginnersguide\\_whatise-learning.html](http://www.garywjames.com/beginnersguide/beginnersguide_whatise-learning.html)).

Some observers believe that the players in this industry can be classified into three large groups: content vendors (people and organisations that generate structured content, from teachers to publishers, and others), tool and technology vendors (software for creating, publishing and distributing content), and service vendors (virtual distribution centres for training, evaluation systems, etc).

In my opinion, a practical way of understanding all these players is by organising them into four large groups:

- 1) Software developers. Companies that manufacture the software which allows us to carry out the different parts of the learning processes online:
  - a. Tools for creating multimedia content – authoring programmes or CMSs (content management systems) such as Quest by Allen Communications (<http://www.allencomm.com>), Authorware by Macromedia (<http://www.authorware.com>), and the ToolBook application by Click2learn (<http://www.click2learn.com/>).
  - b. Platforms for managing and distributing content, as well as for student administration – LMSs (learning management systems) such as those by Saba (<http://www.saba.com>), Docent (<http://www.docent.com/>), and Pathlore (<http://www.pathlore.com>).
  - c. Tools for holding virtual classes – real time interaction between teacher and student at a distance, such as Placeware (<http://www.placeware.com/>), Interwise (<http://www.interwise.com/>), Centra (<http://www.centra.com/>), and LearnLinc (<http://www.learnlinc.com>).
- 2) Content generators. This includes those organisations that organise content using a pedagogical basis so it can be used for a learning purpose:
  - a. Generators of tailor-made courses, drawn up for a specific organisation in response to its specific needs.
  - b. Developers of standardised courses, such as universities with a “factory” for online courses or companies that also generate such courses, such as SmartForce (<http://www.smartforce.com>), NetG (<http://www.netg.com>), and Skillsoft (<http://www.skillsoft.com/>).
- 3) Virtual learning centres. This includes Internet sites where you can access an online course, individualising, for example, your “learning path”:
  - a. Organisations with their own course catalogue, for example, DigitalThink (<http://www.digitalthink.com>) and Cardean University (<http://www.cardean.edu>).
  - b. Integrators or distributors of content produced by others, such as HungryMinds (<http://www.hungryminds.com/>), Fathom (<http://www.fathom.com/>), NinthHouse (<http://www.ninthhouse.com>), or in Spain, ICTNet (<http://www.ictnet.es/cursosonline/>), among others.
- 4) General learning portals, where the existing range of courses can be organised, such as eMagister (<http://www.emagister.com/>) or Aprentia (<http://www.aprentia.com/>) and where general learning resources can be accessed (dictionaries, study methods, etc), usually with a business model based on publicity or sponsorship.

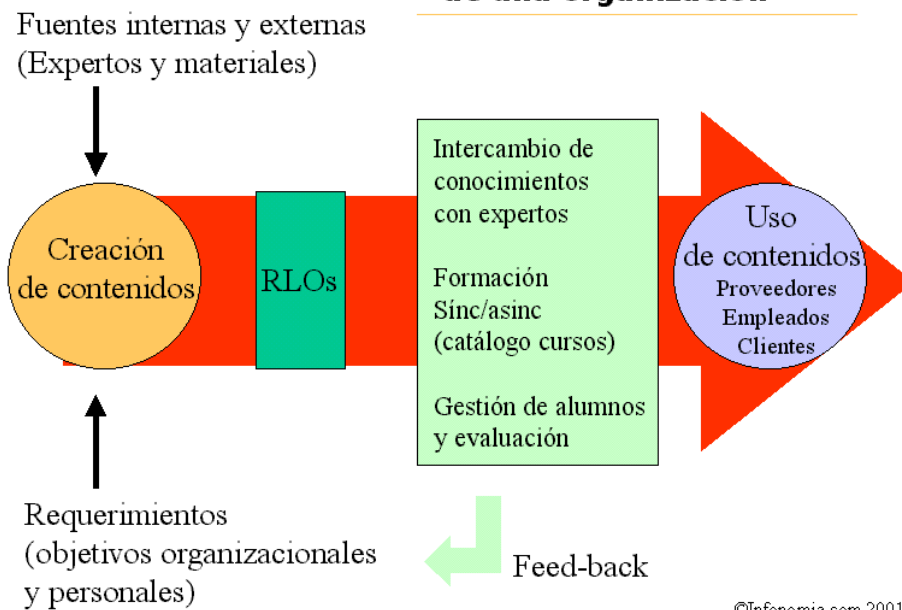
As can be seen, the situation is quite complex. Companies are increasingly demanding a comprehensive solution, although perhaps *the* solution has not yet been invented. That is why guides that help identify the best solution for an organisation's specific needs are so useful. A document of this type, such as "Guideline for buying e-learning services" is available at <http://www.learningcircuits.com/2001/nov2001/guest.html>. There is an even more detailed guide available free of charge (after registering your personal information) at <http://www.lguide.com/reports/lmsbuying.cfm>.

In an information society, it is obvious that anything connected to learning is going to draw attention. We are only going to hear more about e-learning. Among the trends that are worth underscoring in this field for the coming months are the following:

- 1) Long, monolithic courses on a particular subject will be replaced by "knowledge pills," short courses that will respond immediately to user needs. Thus, we will be moving away from just-in-case toward just-in-time (prior to creating a JIC course base for those who "just in case" need it). Content, therefore, will have to be created as RLOs (reusable learning objects), "small independent learning experiences with an objective, a learning activity and a means of evaluation." For more on this subject, see the Reusability page at <http://www.reusability.org>.
- 2) Learning moments will be achieved through content in a wide variety of formats (text, audio, video, or any combination thereof with realistic simulations), taking into account the moment (the situation) in which the users find themselves (in their car, their home, etc.), as well as their individual learning styles (visual learners, aural learners, kinaesthetic learners, etc.). The key to this new vision of learning is to help users identify their learning objectives and find the appropriate available materials.
- 3) Content development will not be carried out in a centralised manner; rather anybody will be able to organise his knowledge into a course by using simple tools in the form of templates. Everybody will have learning (doing their job better, but also contributing ideas for generating products that respond to the ever-shorter market shelf life) and teaching (transmitting what you know to others, and not simply "storing" what you know, but making an effort to make it comprehensible using a pedagogical approach) as his main objectives.
- 4) E-learning will not be limited to employee training but will spread out across the whole value chain. Thus, organised content will frequently be provided to both suppliers and clients.

In this way, an organisation's learning system will tend to be more like in the following illustration.

## El sistema de aprendizaje de una organización



### An Organisation's Learning System

Internal and External Sources (Experts and Materials)

Content creation

RLOs

Exchange of Knowledge with Experts

Synchronous/Asynchronous Training  
(Course catalogues)

Student administration and evaluation

Use of Contents

**Suppliers, Employees, Customers**

Requirements (organisational and individual objectives)

Feedback

This will all happen, of course, if companies can comprehend that training and learning goes beyond mere employee instruction and, in fact, consists of one of the key pieces in a strategy we can sum up as the conversion into a learning organisation.

### Conclusions

From all of the above we can draw the following conclusions:

- 1) We are faced with a new learning channel, of which we are still learning the basic rules.

- 2) One of the main problems will involve the merging of formal training (learning) with the free movement of knowledge (knowledge management).
- 3) The way in which learning objects are combined and presented will be critical. The use of narratives (story telling) and the design of experiences will be key factors for success (see ke 627, "Learning through stories", <http://www.infonomia.com/extranet/index.asp?idm=1&idrev=1&num=627>, or see ke 613 at <http://www.infonomia.com/extranet/index.asp?idm=1&idrev=1&num=613>).
- 4) Blogs can play a critical role in e-learning because they represent a pleasant way to learn gradually. See, for example, Seth Godin's blog, <http://www.sethgodin.com/sg/blog/sethgodin.html>, a magnificent source of learning about new ways of marketing.
- 5) The current range of available products and services is chaotic. Some kind of natural selection will have to take place for the quality to go up.

The real buzz word in the next few months will be "blended learning". This is understood to mean a learning experience that combines physical attendance and virtual learning. In other words, it is an attempt to have the best of both worlds, and, specifically, to incorporate the social factor of attendance in order to multiply the value of virtual learning.

### **To learn more about the subject**

A study on e-learning in Spain, drawn up by the Doxa Group (<http://www.grupodoxa.com>):  
<http://www.grupodoxa.com/e-learningGE.htm>

White paper by Thinq, "e-learning, the future of learning":  
[http://www.thinq.com/pages/new\\_wp\\_thefuture.htm](http://www.thinq.com/pages/new_wp_thefuture.htm)

The Darwin Executive Guide to E-learning:  
<http://guide.darwinmag.com/career/education/elearning/index.html>

The e-learning resource centre at CIO:  
<http://www.cio.com/research/elearning/>

Consultants specialising in e-learning:  
<http://www.brandonhall.com>  
<http://www.lguide.com/>  
<http://www.masie.com>