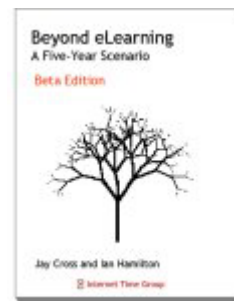# THE DNA OF ELEARNING

By Jay Cross & Ian Hamilton

Corporate eLearning is a powerful technology, but it has strayed from its inspired beginnings. Poised to become a driver of business performance, eLearning lost its way as vendors reached for quick economic gains at the expense of long-term strategic position.

eLearning devolved into quick-to-sell IT-only content libraries, bland Web course designs, and unfocused, minimally tailored portal solutions. This was a boon to the training department, but not the business as a whole, and the value of hassle-free turnkey campuses and trainer-empowering LMSs became the low-hanging fruit in the marketplace.

This article looks at the genesis, quality, and current attitude toward eLearning.

These pages come from *Beyond eLearning*, a 225-page description of how corporate learning, optimal content, competency management, and eKnowledge will converge over the next five years. If your organization invests hundreds of thousands of dollars in eLearning, *Beyond eLearning* is required reading. More information at www.internettime.com/beyond.

THE PAST: LESSONS LEARNED THE HARD WAY

1990-1999: The era of custom CBT

eLearning began as computer-based training (CBT), meaning standalone CD-ROM training courses (and before them, videodisc courses!) playing on end-user computers, standalone training stations, and sometimes across client/server LANs.

The *technology players* of this era were well defined—a handful of companies selling desktop-based multimedia authoring systems that could be used by modestly skilled programmers or *very* technically savvy instructional designers to assemble CBT. *Macromedia* led the market with a good tool for the "everyman" developer of CBT, *Authorware,* as well as its more powerful cousin *Director,* which however was not optimized specifically for CBT as opposed to other multimedia applications. *Asymetrix* (now *Click2learn*) placed a strong second with its *Toolbook* authoring program, followed by *Allen Communication* (now part of *Mentergy*) with *Quest* and *Aimtech* (acquired by *Asymetrix* in 1997) with *IconAuthor*.

Digital media tended to be a rich and expensive mixture of video, narrative audio as well as music and sound effects, graphics and animations, and formatted text—although desktop video in the leading AVI, MOV (QuickTime), and MPEG-1 standard formats remained problematic until the Pentium chip. Interactive instructional quality using these tools and media developed to a relatively high degree—albeit sometimes more for entertainment than instructional value.

The *content side* of CBT was approached in one of a couple of ways. The big wave was a large number of high-quality "boutique" developers of custom courseware using the above authoring tools. Some of the "big names" of this generation—some now gone, most acquired, a few surviving—were *Allen Communication, Creative Media Development, HyperMedia Group, Institute for Advanced Technology, Interactive Media Corporation, Internal & External Communication (IEC), International Learning Systems, Leadingway, Learning Sciences, Learning Systems Sciences, Learning-Edge, Micromentor, Midi, Multimedia Learning*, and *Strategic Interactive*.

The resulting courses were often innovative, highly participatory, engaging, and instructionally effective, often featuring conditionally branching simulations,
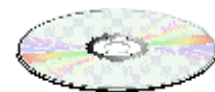
opportunities for learner exploration and discovery, extensive feedback and remediation, user-controlled videos, animations, audiovisual slideshows, and so on—but they also were very expensive, very slow to develop, and monolithic:

- *Very expensive*—Priced at from $50,000 at the low end to $100,000 or more per "finished hour" of "CBT seat time"; for example, a 4-hour custom multimedia course cost between $200,000 and $400,000 or $500,000

- *Very slow to develop*—An intricate multi-step development process in which each step—needs analysis, design, scriptwriting, media production, programming, QA—was itself a multiple-month project unto itself; perhaps 8-10 months was required from initial needs analysis to final product for a good course comprising 4 hours of seat time

- *Monolithic*—Essentially too difficult and expensive to modify once they were finished and deployed—the authoring tools were programming languages, and the resulting courses were unique software programs, making re-development for an update as intricate as the release of a new version of software. In addition, the replacement of CD-ROMs in the field was too cumbersome
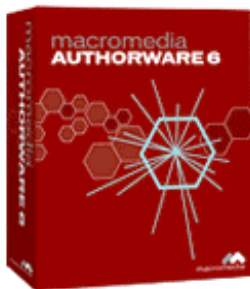
Moreover, the actual technology of implementation—the authoring tools, which truly were high-level programming languages optimized to create typical instructional interactions—was buggy, often crashing and not migrating from one platform to the next, e.g. not from 16-bit to 32-bit Windows, from Windows 95 to 98, even from desktops to laptops, etc.

These dynamics led corporate customers to understand CBT as something that is done to a limited degree and only for targeted high-impact training needs, and that has a short shelf life and a very real degree of risk. The mindset was, "If you want to do CBT, you can only do so much of it, it may not work, and it won't have a long life—but the impact in that time period can be tangible."

Vendors of custom courseware solutions could not scale operations because their cost structure to support the labor-intensive, complex process of high-quality CBT creation was as great or greater than their revenue. The largest custom CBT vendors grew to $20 million in this milieu—but had over 200 employees—while most "name" CBT boutiques hovered in the $4 to $10 million range.

> **The Lesson**: Well-designed, high-quality CBT can have great instructional and performance-boosting value. But it is very costly, slow and labor-intensive to develop, quickly obsolete, and suffers from a house-of-cards software limitation—all of which prevents its value from gaining long-term or large-scale momentum.

1994-1999: The dawn of economic sense in packaged CBT

The notion of pre-packaging CBT training courses and selling them on a mass scale was a clearly better model, where the vendor could create margin and scale its business. The CBT companies that made something of themselves in the mid-90s adopted this model exclusively, became the early leaders in CBT, and grew to approach and even exceed $100 million revenue levels—led by *CBT Systems* (now *SmartForce*) and *NETg*. Typically, these companies did not want to provide customization to their off-the-shelf courses—a low-margin business comparable to the boutiques' custom courseware services.

Topically, they almost uniformly provided IT skills training and some desktop-computing skills training, and for good reasons—audiences for IT/computing were the obvious "early adopters" for using the computer to train. Just as importantly, the need for industry- and customer-specific customization was virtually nonexistent in IT/computing, making it a doubly ripe fruit to pick.

Some vendors did attempt to package CBT courses in business soft skills, professional skills, and vertical markets—but with limited success. Three primary reasons held them back:

- These areas more often than IT (and even necessarily) require significant industry- and customer-specific customization, dissipating the economic advantage gained by the vendor through pre-packaging.

- The business/professional and vertical-market training need is often unique enough to each customer company to be fully custom anyway—a time-intensive, energy-consuming, costly effort that simply cannot be satisfied with a pre-packaged course even as a starting-point for customization.

- Success in one business/professional/vertical market involves a degree of market dedication, content specialization, and brand identity not transferable to entering new markets—limiting the potential market opportunity of any packaged content vendor that would seek to grow outside IT/computing skills training.

> **The Lesson: Packaged content is financially sensible to sell and cost-effective to buy, and packaged IT training courseware can be quite effective. But business/professional skills and vertical-market learning content has to be industry specific, business specific, and customizable to be of value, all of which requires immense dedication, investment, and labor from the vendor—more so than makes economic sense.**

1997-1999: The rise of the Learning Management System

In this milieu, customers realized they had significant numbers of high-cost, high-promise CD-ROM courses going out to all sorts of locations, and who knew whether they were being used or having an impact. This problem was especially acute when a big-ticket custom project was being deployed—the large-scale implementation was expensive and associated with much fanfare, and had to be managed centrally and cost-justified.

Suddenly a supplementary feature found in many custom courses—a desktop- or LAN-based student administration and data reporting system—augured a solution to the problem, namely a more expansive and powerful WAN-based or intranet/Web-based version of these systems that would work across the extended enterprise. Such a system would:

- Automate the administration of CD-ROM-based and even Web-based training deployed across many locations

- Launch and track CBT courses

- Work both intra- and inter-departmentally

- Report on the results of everything, and stratify reporting by location, department, group, etc.

- "Surround" and enrich CBT experiences with online collaboration among groups of learners and between instructors and learners, such as threaded discussions, chat rooms, news and document postings, and so on

Thus was born the CMI or *Computer-Managed Instruction* system, also known as *Course Management System* or CMS. The first vendors with WAN-based CMI/CMS solutions for CBT were the same companies that sold the authoring tools: *Macromedia, Asymetrix,* and *Allen Communication.*

Soon, however, the purpose of these CMI/CMS systems became blended with *Training Management Systems* or TMSs. Several TMS brands existed— *KnowledgeSoft* (now *KnowledgePlanet*), *Syscom* (later *TrainingServer* and now *THINQ Learning Solutions*), *DKSystems, Silton-Bookman Systems* (with its <u>*Registrar*</u> product, later absorbed into *Pathlore*), and several others. TMSs tended to emphasize:

- Modeling of employee skills and measurement of skill gaps through online testing
- Correlation of skill-deficient learners with matching training solutions
- Administration of classroom training resources and logistics
- Automation of the registration process
- Of course, reporting on the results of everything

As the CMI/CMS and TMS concepts merged, a new breed of *Learning Management System* or LMS vendor appeared on the scene, featuring more robust enterprise technologies based on an Oracle foundation and a comprehensive attempt to administer, manage, track, and report on skills, classroom training, and CBT across the enterprise: *Saba Software, Docent, Plateau Systems, Pinnacle* (later *Learnframe*), *Oracle, IBM/Lotus,* and many more very small companies. Only a handful were doing more than a few million dollars selling these systems yet, but all were jockeying for future market position.

The need to differentiate between these offerings and select one suddenly became a big deal among corporate training buyers, catalyzing the success of 3rd-party consultants such as Brandon Hall who could help companies choose from among these systems, all of which were lumped into the same LMS product category but which in fact tended to highlight different features to achieve different purposes.

Button from Elliott Masie's TechLearn 2000 at the height of the LMS frenzy

More importantly, strict standards needed to be put into place to make sure the CBT tracking portion of an LMS "talked to" CBT content from multiple sources, including both multiple packaged content

vendors and custom-developed content using any of the commercial authoring packages. Thus the AICC ("Airline Industry CBT Committee") standard for interoperability between computer-based training and an LMS—the only standard then in existence and ready for adoption—became fundamental.

More recently, "better" Web-centric standards have arisen that extend but otherwise closely resemble AICC to serve the same purpose—IMS, IEEE LOM, ARIADNE, and the "unification" of all these standards—ADL's SCORM.

> **The Lesson**: Enterprise control of CBT administration and deployment is good—but it needs strict standards so that different content sources readily plug-and-play on any administrative technology platform.

1999: Everyone moves to the Web, or at least wants to

As companies completed installation of their intranets, and 56k or better bandwidth became more commonplace, it suddenly made good sense to migrate from CD-ROM-based training to Web-based training. There were five basic drivers of this transition:

- Web-based training helped to justify the cost of the intranet.

- Implementation of eLearning (as the phrase became born in 1999) to the field became far easier when CD-ROMs weren't being distributed and maintained at endless numbers of locations.

- Learning could be taken "anywhere, anytime," so long as a browser-based Web connection could be made to the host server.

- The shelf life of courseware could more easily be extended, as course updates needed to be implemented only once, on a server, rather than endlessly on each training workstation at each training location.

- Central LMS management and control via easy-to-establish Web connections allowed the promise of the enterprise LMS to reach fruition in pragmatic terms, and catalyzed a true empowerment of the central Training/HR Department to manage training across the enterprise.

However, the "move to the Web" came with considerable downsides:

- Limited engineering technologies for Web server-based courseware shot down much of the interactive and instructional richness of Web courses as compared to the CD-ROM courses they were replacing.

- Bandwidth continued to be a limitation and prohibited media richness by shooting down much of the use of digital media. Even today, server latency and network congestion present barriers to seamless inclusion of streaming video in eLearning despite healthy gains in bandwidth.

- Ponderous wait times drastically interrupted and denigrated the learning experience.

The end result was a proliferation of dumbed-down courseware, even a preponderance of "page-turners" that learners tended to abandon before completion. Customers realized that eLearning held a lot of promise but not until something along the lines of the interactive, instructional, and media richness of CD-ROMs could be duplicated, albeit reinvented in the world of Web standards.

All species of eLearning company—custom courseware developers, packaged content providers, and LMS vendors—moved to Web technologies as quickly as possible. Interestingly, the authoring tool vendors failed to do so with the exception of *Macromedia,* which saw its share of a booming market skyrocket as a result, while non-training-specific Web server language vendors such as *Allaire* with its _Cold Fusion_ product and *Microsoft* with _Active Server Pages_ or _ASP_ picked up the slack as typical eLearning development environments.

> **The Lesson**: **The Web is where it's at—it brings administrators, instructors, managers, and worker-learners together in a consolidated virtual environment—but instructionally worthwhile eLearning on the Web will be challenging to accomplish.**

Mid 1999 to mid 2000: The Internet land grab is on

Now enterprise deployment of Web courseware with central administrative management became where it's at, but neither high-quality nor customizable and manageable content was anywhere to be seen.

Many eLearning vendors—some that had been around and many that were now started up for this purpose—offered "shopping marts" of centrally managed Web content accessible across the enterprise, anywhere and anytime. Quantity of content was intended to make up for a lack of quality, industry focus, and customizability. The technology was the *learning portal,* and the content philosophy was to *offer mass quantities.*

Many portals were one-stop-shop e-commerce Internet sites offering a wide array of other vendors' courseware (both online and offline) such as *Hungry Minds, TrainingNet* (now *THINQ*), *Headlight, FatBrain, UOL Publishing* (now *VCampus*), and *GeoLearning.*

Some were vertically focused portals ("vortals") such as *eMind* in accounting, *Princeton Learning Systems* in financial services, and *Payback Training Systems* in supermarkets, hospitality, and foodservice. However, the vortals were better described as "hubs" because the only content they offered was their own.

Some vendors got into the business of setting up private-label, inside- or outside-your-firewall corporate universities. *Click2Learn* became *Click2Learn* to advertise its novel approach of a learning portal where anyone could create content and make it available to anyone else, something of an *eBay* bazaar concept for eLearning. *Pensare* invented the "community" learning portal, which de-emphasized pre-built learning content in favor of collaborative experiences.

LMSs became the data-management backbone of all these learning portals, solidifying the perceived foundational importance of an LMS to "making eLearning happen."

Companies that could pump out mass quantities of course content to deploy on portals suddenly became the rage as well. *SkillSoft, McGraw-Hill Lifetime Learning, DigitalThink,* and many others were born or able to catalyze their businesses. The earlier generation of content vendors such as

CBT Systems (which at this point became *SmartForce*) were able to jumpstart their business growth.

October 1999. CBT Systems morphs into SmartForce, "the eLearning Company."

Interestingly, the majority of the original high-quality custom CD-ROM courseware developers didn't make the jump to the Web successfully, just as most didn't become packaged content vendors. Reasons included their unwillingness to lower quality standards to what was current on the Web, their lack of aptitude for large-scale production of mass quantities of content, and their general dearth of sufficient technological sophistication to create enterprise-strength solutions for Web-server delivery.

The March 2000 downturn in the stock market brought these trends to a halt. Most learning portal companies had scant near-term means to make money selling other peoples' content, and the generally low quality of content meant few people were even interested in buying it anyway. Most companies went under, others were quickly sold, while the survivors won the right to play another round by reinventing themselves.

> **The Lesson**: Seeming opportunities in the new Web economy are staked out by learning portals and acres of bland learning content. But mass aggregations of eLearning content not designed to serve specific business purposes and offering little instructional quality have no value.

Early 2000 to present: The practicality of closed content-and-technology training systems

In the aftermath of the stock market bloodbath and the eradication of un-profitable, un-focused portals and bland mass-quantity content, a handful of the content providers—notably *SmartForce,* to a lesser degree *DigitalThink* and *NETg,* and to a much lesser degree *SkillSoft*—emerged as winners. Each of these companies offered packaged content, but provided sufficient focus and an aura of quality to it that made the content appear "ready to fit into" a customer organization's training plans.

They tended to deliver their Web courseware to customers via a hosted learning portal built from their own technology—although they may or may not have used the phrase "learning portal" to describe their platform.

They provided customization services, even in the most rudimentary form of customer logos on portal interfaces as an argument that they personalize the experience for users. Moreover, they clearly presented themselves as providers of *training,* as opposed to the more glamorous but ambiguous and risk-threatening messages from other eLearning vendors about "innovative technology," "learning communities," "learning is more than training," and the like.

Since early 2000, these four companies have taken their packaged content models—*SmartForce* and *DigitalThink* with IT/computer skills, *NETg* with the same but adding simulation-based business skills, and *SkillSoft* concentrated in management and sales skills—and broadened them into *total sole-source eLearning solutions*.

These are "closed systems" employing their proprietary technologies running their own, generally un-customized, content, typically or even religiously unmixed with other eLearning technologies and other content. *SmartForce* standardized on an ASP model, while *DigitalThink, NETg,* and *SkillSoft* offered a similar ASP solution but also an option to implement on a customer's intranet.

Early 2000: peddling fear, uncertainty, and doubt.

SmartForce, NETg, and *SkillSoft* offered customers access to their libraries (offering but not emphasizing the option to customize the content), while *DigitalThink* added extensive custom courseware services as a complementary service to its content library.

Such "closed" sole-source solutions have worked for the customers who opted for them:

- Multiple vendors weren't coming together to step over each other and create chaos.

- Their topical coverage blanketed certain important elements of a company's total training need with a comprehensive solution, and so "took care of" that area of training, without touching upon (or

troubling) more sensitive, business-critical, core-skills areas of most customers.

- The vendors could provide a modest, generally acceptable degree of focus in designing a customer-specific online campus that revolved around the customer's business requirements, as opposed to a one-size-fits-all portal.

- An adequate level of instructional quality could be achieved for the basic, non-business-specific skills they taught within the well-defined—if somewhat uninspired—bounds of the closed systems.

These four companies each saw healthy growth in the last two years and have succeeded at becoming true brands in corporate eLearning. Yet they have not convinced the market that eLearning has crossed the chasm into mainstream value and so have experienced solid, but not explosive, growth.

Until the recession hit with full force in 2002, they retained some of the healthiest stock prices and market valuations in corporate eLearning, and were establishing brands that communicated, "We know how to do online training." Since then, NETg has been swallowed by Thompson Publishing, Digital Think has downsized severely, and SmartForce and SkillSoft are merging into one as-yet unnamed company.
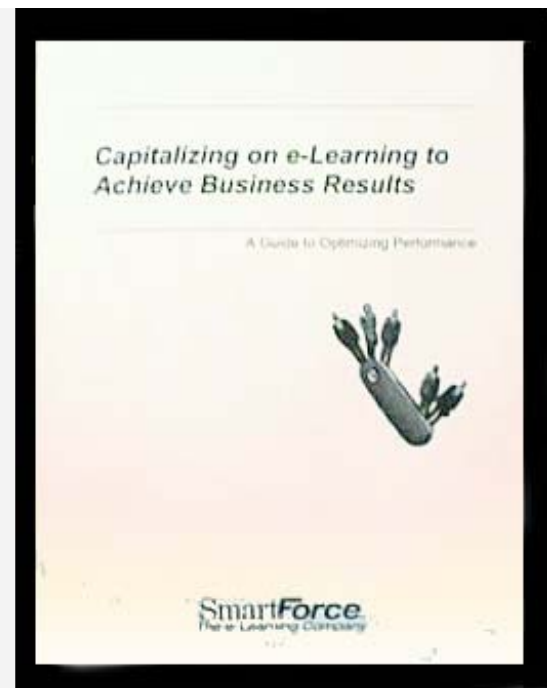
First in a flock of white papers connecting eLearning to business outcomes. February 2000, Internet Time Group.

The Lesson: Pragmatic, no-nonsense eLearning solutions to small problems are welcome in the face of perhaps more grandiose but clearly incapable alternatives. A focused content library supported by its own technology/ delivery platform as a total solution, and that provides at least a basic level of adaptation to each customer's specific business requirements, <u>can work</u> when it refrains from trying to get too fancy or tackling particularly significant areas of business performance. Yet it remains less than the learning revolution many enthusiasts expected.

2000 to mid 2001: Do-it-in-house eLearning is the only way to get it right, and LMS infrastructure is king

As the collapse of the stock market was mirrored by a slowdown in eLearning's momentum, the "closed" total-solution vendors became a strong choice for corporate customers simply because they could actually provide somewhat need-targeted solutions without significant flaws. But their offerings revolved around IT skills, and in the case of *SkillSoft* around one-size-fits-all management skills. None of these solutions addressed the specific business-and-professional skills training for jobs and tasks more directly pertinent and central to companies' operations.

Consequently, the strongest momentum began to gather for Global 2000 corporations to start or re-start eLearning initiatives with the intent of providing more mission-critical training online, and with the strategy to "do it themselves"—control their own eLearning destiny and drive their eLearning activities from within, drawing organically from the context of their own unique business requirements and performance-driving infrastructures.

The content of in-house eLearning was assumed to be a combination of a small amount of off-the-shelf courseware *specific* to the organization's vertical market and its specific business-critical training needs; and a large amount of custom-developed courseware that was 100% specific to the company—indeed, often existing in-house workshops, videotapes, and print-based training materials *converted* to online format.
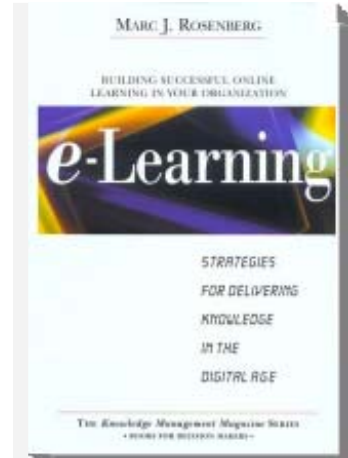
Marc Rosenberg's *e-Learning* (2000) emboldened corporations to roll their own.

Do-it-yourself initiatives typically started with an important first step—the piping upon which to build an enterprise-scale eLearning community for employees, supply chains, distribution channels, and customers. And so the learning management system (LMS) players became the front-and-center darlings of the corporate training department—not as ends in themselves, but as a technology platform upon which to build in-house initiatives. Many of the Global 2000 installed one or another of these LMSs and launched corporate universities on top of them, although in fact only a handful did so on a truly across-the-enterprise basis.

Saba Software did an excellent job of delivering the message that the first step to a do-it-in-house eLearning plan was to install an LMS, and became the clear and established brand leader. *Docent* followed on *Saba's* coattails, and the corporate choice suddenly became, "Do we start our eLearning initiative with *Saba* or *Docent*?"

Saba grew its revenues impressively in 2000 and early 2001, while *Docent* experienced explosive on-your-coattails growth in early 2001. A handful of other LMS vendors became competitive second-tier players, notably *KnowledgePlanet* (the union of *KnowledgeSoft* and *Knowledge Universe*), *THINQ Learning Solutions* (the union of *TrainingNet* and *TrainingServer*), *Click2Learn* (formerly *Asymetrix*), and *IBM Mind span Solutions* (absorbing the *Lotus Learning Space* product), while many others carved out niches—in some cases attractive niches such as regulatory and compliance training by *Plateau Systems*.

> **The Lesson: Corporate eLearning that is concerned with business-critical ("important") training must be based in a company's internal performance-driving systems, shaped around its unique business requirements, and grown and managed within the framework of the company itself if it is going to work. And to do this oneself, the first step is enterprise technology to serve as a platform—in other words, an LMS.**

Latter half of 2001: eLearning vendors won't fool us again

The emphasis on LMS acquisition through 2000 and 2001 yielded a violent customer reaction in Q2/Q3/Q4 2001, namely that LMSs either fall short delivering on their promise, or simply don't work as advertised. "Falling short" is spelled in at least five ways:

- Implementation time has often proven long and expensive, yet the result is often less powerful than had originally been imagined.

- The realization that LMSs only address the *administrative* aspects of eLearning has often only sunk in after implementation. LMSs do not address what is generally found to be a more fundamental requirement, viz. high-quality eLearning content authoring on a large scale, flexible deployment using logic that adapts learning to individuals' skill needs, and updating and reusing content over time to create new learning experiences for new audiences from a previous investment.

- The expectation that learning content from multiple sources will "plug and play" on the LMS platform has not been met, as the so-called industry standards (AICC, SCORM) have proven too loose to be truly "plug and play," and too restrictive to the internal logical operation of content systems to be favored by many content vendors.

- Validation of the ROI associated with LMS implementation and the migration of training materials online has proven elusive.

- Perhaps most damningly, the administrative processes that LMSs do provide—registration processes, course assignments, prerequisites and learning-path logic, skill definitions to drive gap analysis and consequent learning paths, assembly of learning paths from discrete learning objects, e-mail notifications, etc.— have often proven too one-size-fits-all, not adaptable to the unique purposes and processes to which customer organizations want to fit them.

Many customers concluded that LMS vendors do not appreciate, focus on, or take seriously *how* learning is optimally conducted in their business contexts, or what capabilities are really required.

Consultant Bryan Chapman conducts software "shoot-outs" at industry events to help in-house developers decide what authoring tools to build their programs with.

The general market conclusion reached by the end of 2001 has been that eLearning technologies—as platforms for business-critical training needs—simply don't do what companies need or envision them to do. The fact of the matter is that different companies need them to do different things. And lacking the ability to purchase an effective eLearning technology platform, companies certainly cannot be convinced to purchase third-party online learning content to play on these platforms.

What is left? One avenue is the "closed" total solutions from *DigitalThink, NETg,* and *SkillSoft/SmartForce* that generally fall outside the domain of business-critical training (*THINQ Learning Solutions* attempted in 2001 to re-cast itself as a comparable sole source, but has had to retrench itself into a simple LMS strategy by early 2002.)

A second avenue is to create a *fully homegrown* eLearning solution of combined technology and content oneself—a choice made by several of the largest Fortune 200 companies. A third avenue is to "rent" an LMS on a short-term basis via a hosted ASP service to try it out, rather than invest in and implement an LMS as a long-term commitment.

> **The Lesson: LMSs don't do what was expected! They do not adapt to a company's performance requirements or business processes, and they fail to create or manage learning events themselves. Don't be fooled by the over-promise and under-performance of eLearning technologies. You need to do business-critical ("important") eLearning yourself—controlling all its aspects in order to tailor it to your own requirements and processes. Perhaps start with a low-commitment experiment such as a hosted ASP product. And be wary of technology-only or content-only vendors that are only pieces of a puzzle that you will be expected to figure out and put together yourself (because the vendors cannot).**

THE PRESENT: GESTURES AT SUSTAINING ELEARNING AS A PROCESS

Now corporate eLearning finds itself suffering from widespread malaise, with the majority of corporate customers slowing down and reconsidering existing and/or planned investments in eLearning and severely tempering expectations for its importance and role to their business.

Small eLearning companies of all types are struggling severely to stay in business, with many not succeeding. The middling and larger eLearning companies are more and more making similar claims about the end-to-end nature of their solutions, and corporate buyers are tending to sift through the onslaught of marketing messages and limit their conversations about possible purchases to the perceived top dozen eLearning companies.

The standard "top 12" list might include *Centra Software, Click2Learn, DigitalThink, Docent, Element K, IBM Mindspan Solutions, Intellinex, NETg, Provant, Saba Software, SkillSoft,* and *SmartForce,* with consideration also given to more specialized offerings from *Franklin Covey, Global Knowledge, Indeliq, KnowledgeNet, KnowledgePlanet, LogicBay, Mentergy, Ninth House Network, PlaceWare, Quisic, RWD Technologies, THINQ Learning Solutions, TrainingScape,* and *Vuepoint.* Yet stock prices of most public eLearning companies have sagged, some dipping to near-penny stock status.

Six trends have gained mind share during especially the latter half of 2001 and into 2002, even as momentum for eLearning adoption has stalled. These six trends have been discussed and analyzed vigorously, and had a modest impact on corporate customer buying patterns. They represent the current focus of attention, the state of the art, in corporate eLearning. The first three in particular are "hot":

Button from TechLearn 2001. (You could still get the previous year's *Need LMS* button.)

- **Blended learning**—Specifically, blending modes and media for learning, including self-paced eLearning, classroom training, live Web-based classrooms, videotapes, one-on-one coaching, and so on, into a complete training regimen

- *Learning Content Management Systems (LCMSs) and learning objects*—A new generation of enterprise technology for authoring and managing (mostly online) learning content

- *Web collaboration or Live eLearning*—The use of Web collaboration software to enable live distance classes, virtual seminars, meeting places for communities of practice, etc., over Web connections

- *Simulations, learning games*, *videos, and storytelling*—The use of multi-branching online simulations to teach procedural and interpersonal skills; learning games to motivate learners to win and thereby to learn; streaming videos that demonstrate examples and non-examples; and storytelling to engage learners in the unfolding of knowledge

- *Training without trainers, version 1*: *Knowledge sharing*—An expansion of eLearning into the domain of knowledge management wherein corporate experts are able to share their expertise directly with others, perhaps via live eLearning

- *Training without trainers, version 2*: *Informal knowledge exchange*—A second form of knowledge management, in this case gathering experts' knowledge in documents, and providing indexed, structured access to the otherwise unstructured knowledge base that results

These six trends are analyzed in the next section, and the singular, underlying trend they represent—a possible bridge for eLearning into its future evolution—will be distilled and made plain.

> **The current trends are a move from learning as reactive, isolated events to learning as a sustainable, proactive process in the organization. They seek to grow and sustain the learning career of each worker.**

Excerpted from *Beyond eLearning*. See http://www.internettime.com/beyond for more.

Beyond eLearning—A Vision of the Next Five Years

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From Ian and Jay:

We wrote Beyond eLearning for managers who need to know what's really going on in the eLearning marketplace and what is likely to take place in the next several years. To get the most from their investments, they need to be able to tell the great applications that boost competitive advantage from ho-hum approaches that automate what has failed in the past.

If your organization is pouring hundreds of thousands of dollars into eLearning, and you consider yourself more a businessperson than a techie or trainer, *Beyond eLearning* is for you. Our aim is to improve the decision-making capability of:

- Chief learning officers, CIOs, and chief knowledge officers
- Senior HR and Training executives
- CXOs concerned with increasing the value of human capital
- Consultants who advise on and implement eLearning
- Investors grappling with the issue of eLearning's market potential
- Leaders of eLearning vendor companies

When eLearning does work, its effects on workforce performance can be startling—and we believe the foundations that will unleash its true potential are just now being built. It is our ambition to help the reader understand what the key success drivers will be of the truly powerful eLearning solutions that will begin appearing in 2003 and 2004, and reach fruition in 2005 and beyond.

Much more information on the web at:
http://www.internettime.com/beyond

Beyond eLearning
A Five-Year Scenario
Beta Edition

Jay Cross and Ian Hamilton
Internet Time Group

AUTHORS

Jay Cross has been passionate about harnessing technology to improve adult learning since the sixties. Fresh out of college, he sold mainframes the size of Chevy Suburbans. Later, he designed the University of Phoenix's first business degree program. He took a training startup to national prominence, capturing 80% market share and training a million professionals to make sound decisions and sell services.

Jay founded Internet Time Group in early 1998 to help organizations learn by providing hands-on advice on implementing eLearning, developing information architecture, advising management, and accelerating sales. Internet Time Group coaches corporate executives on getting the most from their investments in eLearning and collaboration. 14,000 people visit www.InternetTime.com every month for eLearning information.

Jay is also CEO of eLearning Forum, a 1,000-member think tank and advocacy group in Silicon Valley. He delivered the inaugural keynote on web marketing to the first meeting of the Online Banking Association. Jay was principal marketing advisor to CBT Systems during its transition to SmartForce, the eLearning Company. He helped Cisco e-Learning Partners plan, implement, and market their initial web-based certification programs. He co-authored the vision paper that kicked off the ASTD/National Governors Association Committee on Technology and Adult Learning; contributed a chapter to the recent book "Implementing E-Learning Solutions," and assisted Institute for the Future in building global corporate learning scenarios circa 2008.

He has spoken at Training, Online Educa, Image World, Instructional Systems Association, ASTD, and written articles for LINEZine, Learning Circuits, Training and Development, Technology for Learning, and American Banker. Jay is a graduate of Princeton University and Harvard Business School.

Ian Hamilton has been an entrepreneurial leader and technology visionary in corporate eLearning, knowledge management, and online publishing dating back to the original DOS CD-ROMs and online business services of the mid-80s. He has since enjoyed an unbroken chain of success driving market strategy, managing product development, innovating break-the-mold technology, and creating best-of-breed information content and training courseware as one of the progenitors of the eLearning phenomenon. His experience ranges from roles as chief learning officer, chief technology officer, COO, VP of online courseware, managing editor, and GM.

Ian started up and ran Omega Performance's successful, multi-award-winning interactive learning division in 1995 and delivered over $25 million in CBT and WBT for financial services over a three-year period. As a top executive of Avaltus, Ian revolutionized eLearning with the invention of the first true learning content management system, led the company's R&D and courseware divisions, and realized its $100MM+ sale in late 2001. He has recently been involved in helping both startups and established vendors evolve into eLearning providers.

Ian is a graduate of the Committee on the Analysis of Ideas and Study of Methods at the University of Chicago. He makes his home in the San Francisco Bay Area and can be reached at ibh3@aol.com.

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