1996–2006 E-Learning in the Workplace

A decade of change in technology has reshaped the learning landscape.

THROUGH THE MID-1990s, the tapestry of formal learning programs was fairly static. Corporate courses were delivered in classrooms—often to employees within an hour's drive of headquarters. These classes were delivered by workplace learning and performance professionals and vendors.

What happened over the last decade can best be described as a series of e-learning innovations that have reshaped the learning landscape. While tools and techniques were available in the past, during the last 10 years dynamic changes have occurred in technology, business models, and content. While one step backward often leads to two steps forward, these multiple innovations are rewriting the rules of global learning.

Publishing and e-learning

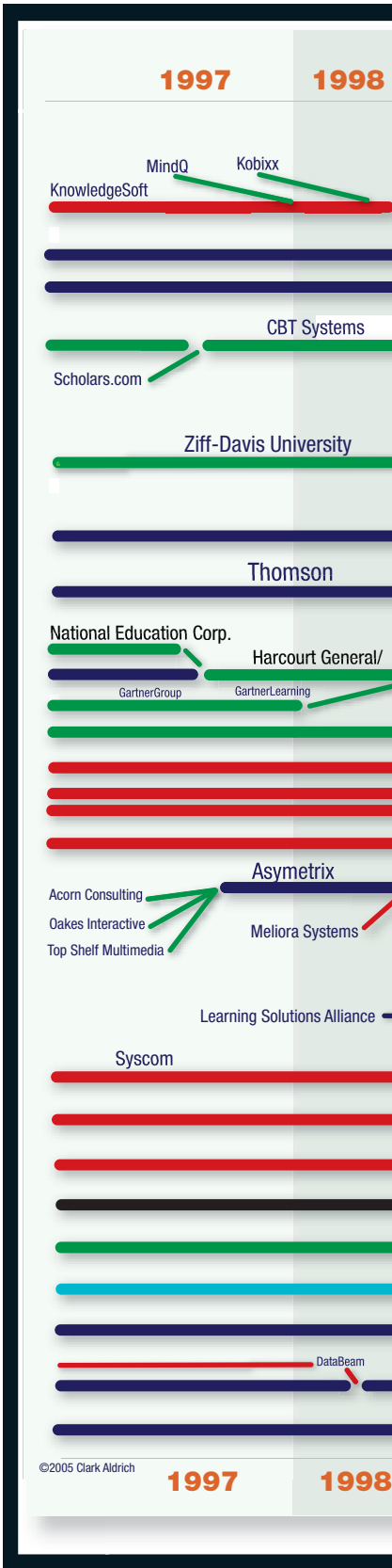
With the widespread use of the Internet in the 1990s, textbook publishers put their libraries of workbooks online, and other companies followed suit. The vendors, epitomized by NETg (pre-Thompson) and CBT Systems (before it became SmartForce, which then became part of SkillSoft), touted low cost and high access.

Enterprises typically awarded contracts to organizations based on the size of their libraries, ease of deployment over the web, ability to produce quick metrics, and low cost per user.

As a result, vendors bulked up on content, often purchasing from low-cost offshore providers—such as Ireland, India, and China—at the expense of interactivity and other design elements. This caused usage and completion rates to be lower than expectations. Many end-learners also complained that the look and feel of courses were inconsistent across titles in the same library.

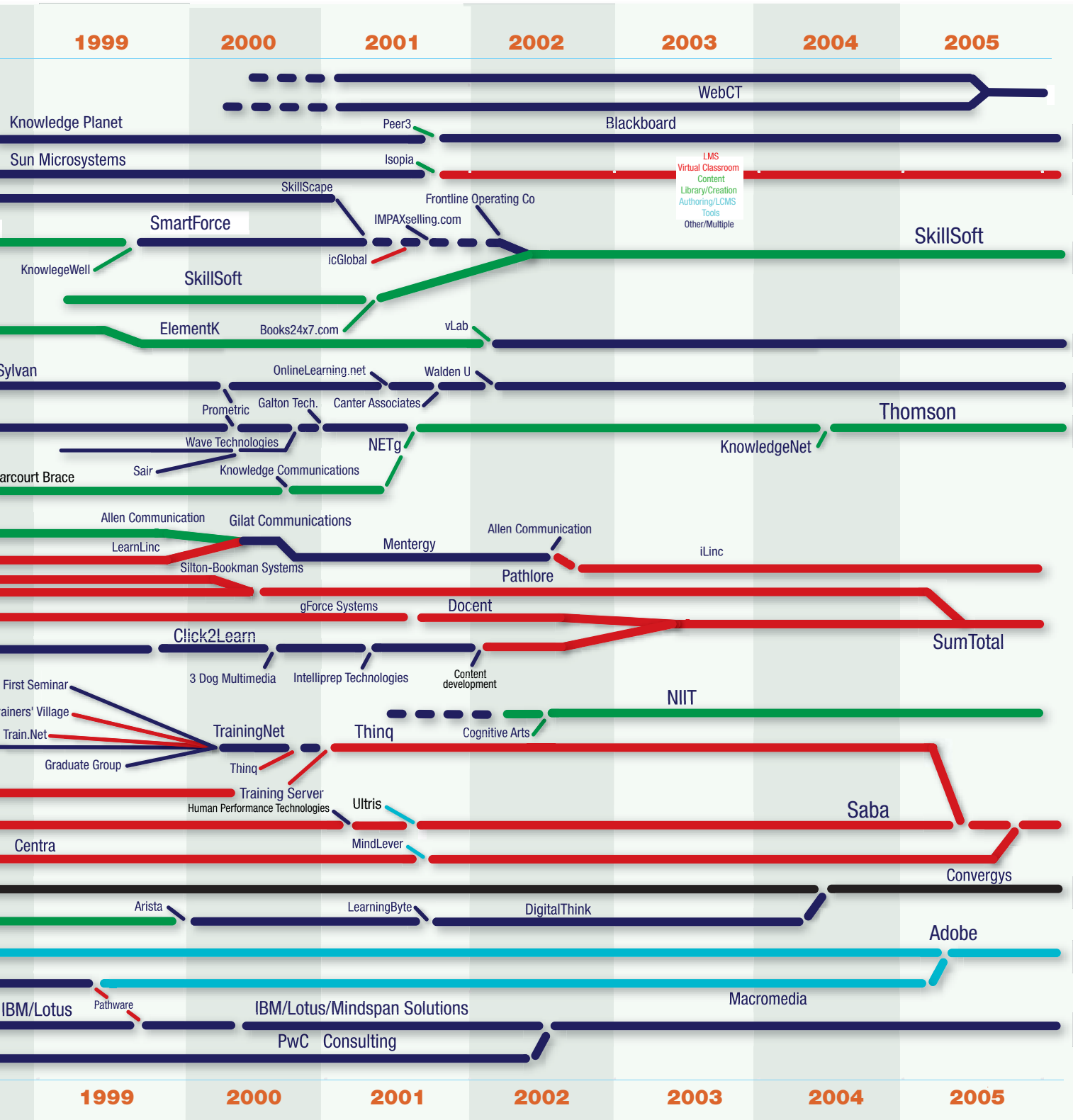
Technology of choice

In the days before text messaging, when the concept of groupware was the rage on Wall Street and at information technology conferences, a new application emerged: virtual classrooms.



By Clark Aldrich

Who Ate Whom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Frontline Operating Co
SmartForce
IMPAXselling.com
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Centra, founded in April 1995 by Leon Navickas, shipped the first version of its virtual classroom in July 1997. Virtual classrooms from Centra, ILINC, and Interwise (and later WebEx) increased the ability of instructors to hold live classes with students in different parts of the building, country, or world.

By integrating voices and slides, virtual classroom tools provided an infrastructure for synchronous (same time, different location) courses. They were used to problem solve, deliver a CEO speech to a company, present a sales seminar, or give a virtual keynote at a conference.

Virtual classrooms today are the distance learning technology of choice for most traditional instructors. The irony is that when Centra first launched the technology, it avoided the workplace trainers—who constantly complained about it—and sold directly to salespeople. Some industry experts credit the fears of air travel after 9/11 with ushering virtual classrooms onto center stage.

Skills management

Enterprise resource management tools were popular in the mid-1990s.

Database companies, such as Oracle, PeopleSoft, SAP, Baan, and Cisco, were creating a new breed of high-end enterprise database applications. The same approach used to track widgets on the production line was also used to track training attendance and skills.

This discovery led to the creation of training management systems, which eventually became learning management systems (LMSs). They were created with two primary goals in mind: to get the right content to the right person at the right time and to record and report the event.

Traditional LMS suppliers—Pathlore, based in Columbus, Ohio; and Plateau, based in Arlington, Virginia—survived for years in environments that did not include e-learning. Their primary function included automation of information tracking, resource planning, and documentation to satisfy regulations. They tended to be more off-the-shelf in terms of capabilities, and more predictable in customer expectations and satisfaction.

In contrast, the new e-learning LMSs, created by Saba and Docent, were white-paper platforms built around e-learning and Internet capabilities. The company founders sought to enter the enterprise management niche.

While the tracking of training was a great success, the tracking of skills was a bit more suspect. The premise behind skills management is to discover an individual's proficiencies for the purpose of deploying and building skills strategically. Skills management can empower employees to take control of their futures by revealing skills gaps and recommending courses.

Skills management was the prime selling point for most LMS suppliers. But the problem with that notion is that more than 60 percent of skills management efforts fail because of a lack of common skills definitions, the need to be both rigorous and employee friendly, and the ambiguity of strategic skills.

High-end content

Consulting companies, from the largest accounting firms to the smallest mom-and-pop vendor, recognized a business opportunity in e-learning. Actually, they saw multiple opportunities in e-learning.

Between 1999 and 2001, it wasn't unusual to find the same large consulting organization offering these five different types of e-learning, with five different cost structures:

- E-learning was used to support ERP implementations, and clients bought the content for about 10 percent of the total bill.
- E-learning was used to support business process re-engineering, which was also lumped together as part of a total bill.
- E-learning development groups sought to make money outside of their parent companies, and did so by charging by the finished class-hour.
- Consulting companies packaged their intellectual property into courses, and sold them as high-end, stand-alone products.
- Consulting groups offered to integrate or outsource an enterprise's e-learning infrastructure and potentially the entire training function.

Some stand-alone vendors, such as DigitalThink, focused exclusively on custom, strategic, mission-critical e-learning and left the content library business in 2000. Consultants soon broke e-learning out of its core audience of supporting information technology professionals.

Still, these higher-end courses were still mostly workbook-style, and did little to help e-learning's chronically poor completion rate.

One-stop e-learning

The industry's faith in the Internet overshot the mark in the late 1990s.

In 1998 and 1999, KnowledgePlanet was launched and Click2Learn was renamed to push e-learning portals as one-stop ASP models—internal websites that could alert students as to which courses they had to take, and launch and track everything seamlessly. I was personally berated by one CEO about the revolutionary nature of the learning portal. Companies like Docent made significant investments in creating learning eco-systems, but to little avail.

Still the portal model today, despite its failure, has greatly influenced all work on standards, including SCORM.

Content management

Learning management systems, despite their success in tracking curricula and people, failed to sufficiently manage learning content, so a new class of learning content management systems (LCMS) emerged.

These authoring platforms gave enterprises and vendors the ability to parse courses into smaller pieces, which eventually broke down some of the barriers between the e-learning and knowledge management. In 2000, WBT Systems realized that it is an LCMS, so it re-branded itself. LCMS vendors were also among the strongest advocates for standards.

Industry consolidation

This next technology progression, industry consolidation, was necessary.

Wall Street and venture capitalists began pumping cash into the industry in 1998, when e-learning became the next killer application. But they soon served a different role.

As markets matured in the early 21st century, the best way for the early pioneers to grow profits (or minimize losses) was through consolidation of like, or synergistic, models. A few relatively large public e-learning companies were viewed as bellwethers for the entire industry, which crowded out a lot of smaller, more innovative players.

Open-source models

In the early days, computer hardware manufacturers provided software as an enabler of sales. Then third-party software companies realized they could make significant revenues by selling new software to this installed base. But today, proprietary software has several major drawbacks, including a long sales cycle and high initial cost.

Communities—including many for-profit companies—are now looking at ways to build open source software. This software allows for free distribution and use to any user who can modify it to enhance a common cause.

Open-source initiatives are popping up all over. There are learning management and course management solutions like Sakai and Moodle, and there are content open-source movements, such as Wikipedia and MIT.

Open-source does not mean free. There is often customization and maintenance work that has to be done although users can choose which parties they prefer to use. Red Hat is the most recognized for-profit supporter of the Linux system, and thus has become common terminology—for example, we are going to "red hat" the e-learning industry, or this is a "red hat" opportunity. Red Hat makes more than 10 percent of its revenue from training.

Simulations

Computer games have become a billion dollar industry. And while computer game companies and pioneers are not invading the formal learning industries, the expectations of interactivity and multilayer content are.

Simulations, unlike games, allow users to practice repeatedly in a safe environment. "Simulation software has been used in equipment service and military applications since the 1980s," according to Gartner, a major technology provider. Simulation will evolve to become the killer application for e-learning."

Simulations come in many genres, including branching stories (offered by WILL Interactive), interactive spreadsheets (BTS), game-based models (Games-2Train), virtual products (Equipment Simulations) and practiceware (SimuLearn). Choosing the right simulation genre is often the biggest choice to be made.

Educational simulations clearly demonstrate that the potential of e-learning can best be realized in blended models, using instructors as mentors and coaches.

Endless possibilities

Search engines, blogs, podcasts, cell phones, and instant messaging provide instant information at the point of need with more ubiquitous authoring tools.

There is no denying that the tools dedicated to formal learning have increased dramatically in the last decade. And as the tools get more powerful, the content and teaching methods increase with them. We can teach more material than at any time in history. We can define new genres and new ways of teaching that will evolve throughout decades and even centuries. But at the same time, the need for good content, sound business perspectives, and shared wisdom has never been greater.

This is truly a wondrous time to be a workplace learning and performance professional. TD

Clark Aldrich is co-founder of SimuLearn; clark.aldrich@simulearn.net.