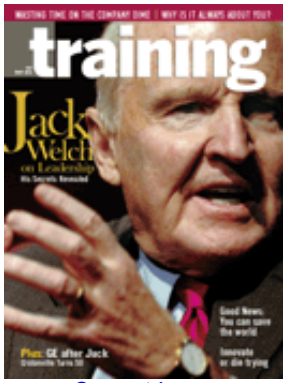

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Seven Revealations About E-Learning

E-learning has come a long way, but that's largely thanks to a daunting trial-and-error process since the medium's emergence on the training scene. Here's a look at the fruit of that frustration -seven revelations about e-learning.

By the time Tweeter Home Entertainment Group took the plunge into e-learning a little more than a year ago, the company had done enough thinking to know that its goal was to reduce dependence on classroom training rather than to eliminate it. True, classroom instruction had become “a logistical nightmare” for the growing national retailer of high-end audio and video systems, says Tweeter’s e-learning director Jon Herron.

But the objective wasn’t only to impart information more efficiently to 3,500 employees at almost 160 outlets around the country. It also was to make classroom training more effective. The Canton, Mass.-based company specializes in custom installations of home theaters and sound systems in buyers’ homes. Not only must the installers know what they’re doing, but “it’s a competitive advantage for us that the salespeople in our stores know what they’re talking about,” Herron says.

Herron saw e-learning as an answer to two questions. First, given the rapid rate of change in the electronics industry, “How could we get more and more information to the people who needed it?” Second, “How could we do it in a way that freed up classroom time for the absolute highest-value training?"

The idea, Herron says, was to “stop using the classroom just to let people know about the latest widget [and use it instead] for things like hands-on training for installers and scenario-based role-plays for salespeople.”

The challenge was complicated by the fact that the “latest widgets” in Tweeter’s industry include such things as big audiovisual receivers with hundreds of connectors on the back. Tweeter hires new people who must learn about this equipment from scratch, but it also has many employees “who have been with us for 15 or 20 years and who resent being talked down to,” Herron says. “Veterans might need information on just one feature that’s new. They don’t want to hear about things they already know.”

What to do about those different groups of learners? A classic approach would have been to put a bunch of instructional designers to work building a library of progressively advanced e-courses: Audio Receivers 101, 202, and so on. But if all a veteran needed was timely information about one new feature, what would be the point in creating an entire course labeled Audio Receivers 404?

Herron’s answer to the problem was a single, easily modified program that lets learners control how much they want to know. On a Web page, employees find a picture of the back of a receiver. A veteran who needs to know only about a single new connector can click on it and spend four minutes learning about it. A rookie might easily spend 45 minutes learning about the back of the same receiver.

Veterans can update their knowledge of several receivers in 20 or 30 minutes, while for rookies the program serves as a full-fledged course that takes hours to complete. Herron says he created the program by himself in two weeks’ time using **Outstart Evolution LCMS**, a learning content management system (LCMS).

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Salespeople and installers are tested periodically to ensure that they know everything they ought to know. But provided you test for skills and knowledge, “you don’t have to micromanage people’s learning,” he observes.

Lessons learned

That story illustrates at least three of the themes we heard from experts asked about the state of the art in e-learning. We weren’t concerned with improvements in technology or infrastructure—greater bandwidth, improved authoring systems, etc.—so much as with gains in the training industry’s understanding of how to use computer technology to teach. From that perspective, what do we know now that we didn’t know five years ago?

1. There’s no funeral yet for the classroom

“We know that the classroom ain’t dead, and it isn’t going to die anytime soon,” answers Saul Carliner, assistant professor of educational technology at Concordia University in Montreal.

In the 1990s, Carliner says, “We wanted it to be a contest between e-learning and classroom training—which worked better?” Five years ago that thinking was still pervasive.

Today, he says, far more trainers understand that both media work. Now the question is how to address a particular learning need most effectively. “It’s not one medium vs. the other, it’s how do you compete against yourself?”

2. Designers need to curb course overload

We know that “the concept of ‘courses’ can get in the way” of using e-learning effectively, says consultant Elliott Masie of The Masie Center in Saratoga Springs, N.Y. “Our original metaphor for e-learning came from CBT (the computer-based training of the 1980s), and the metaphor for CBT came from trying to create a digital equivalent of the classroom experience,” Masie says.

"A ‘course’ implies something with a beginning, middle and end. It implies things like practice, followed by remediation, over a fixed period of time.”

Full-fledged digital courseware certainly has its place, Masie says. But for many learning applications, “we see designers dropping things like introductory modules, navigation modules and even the assumption of teacher and student… [Programs are becoming] shorter, less Skinnerian, less branch-based and more user-centric. People can revisit them from time to time without necessarily getting to the end of them.”

William Horton, president of William Horton Consulting in Boulder, Colo., puts it this way: “In a classroom, you always need to start at the level of the least knowledgeable person and end at the level of the most ambitious person. Getting away from that mentality in e-learning has been a process of gradual rediscovery. Each individual can start where they are, progress to where they need to be, then stop. But only if the program is designed to allow it.”

3. ‘Wham, bam, thank you, ma’am’ works

When the goal is to impart information rather than to build new behavioral skills, “truthful and fast beats polished and late,” Masie says. Tweeter’s audio-receiver program was built by a skilled instructional designer, but the fact that Herron created it in two weeks, not six months, is hugely significant. His program is fast and good. But for some learning needs, fast alone sometimes is enough.

“Rapid instructional design” has become a buzz phrase for good reason. In RID, courseware is created by subject-matter experts rather than training experts. The creations, usually brief, are most often done in programs such as PowerPoint or Lectura. The idea makes many instructional designers wince, but Masie says learners value information that comes from “the horse’s mouth—meaning from someone near the reality of where the work is

happening."

High-end instructional design skills "are of greatest value when I want to teach you to drive a tractor or master a programming language or do a full-blown customer-service change," Masie says. "The more behavioral the learning need, the more you need high-end design." But not all learning needs require intensive, carefully structured training.

Learners' embrace of programs created quickly by subject-matter experts suggests to Carliner that the training profession may be due for an agonizing reappraisal. "What part of the e-learning market do we want to stake out as our own?" he asks. "Maybe we need to give up some turf. Maybe we should rethink where we add the most value and then sell that."

But wait, there's more. Experts pointed to other lessons that Tweeter's program doesn't necessarily illustrate. For instance:

4. Some things never change…

"The 'e' changes the economics of learning; it changes nothing about how people learn," says Horton. He admits this may fall under the heading of something we ought to know by now rather than wisdom we have fully grasped. "I still go to conferences where some e-learning expert has 'discovered' that it helps to engage learners. Plato could have told you that."

E-learning has enabled us to arrange learning experiences "on a mass scale and across vast distances that weren't possible 10 or 20 years ago," Horton says. But as for how to build skills or impart information that people will remember and act upon, "technology doesn't guide us to do anything we shouldn't have been doing anyway."

None of the so-called surprises e-learning designers have run into ever deserved to be surprising, Horton says. Is it better to engage learners than to bore them?

Yes. Should you "show learners a clear path from what they already know to what they need to know?" Yes. Should you usually begin with an overview of a skill and then proceed to realistic practice or simulations? "Yes—and cavemen probably did that when they were teaching someone how to carve an arrowhead."

5. Some elements get lost in translation

"Learning objects aren't as easy as we thought they'd be," Carliner says. Learning objects are small chunks of information—a diagram of a carburetor, say, or a five-step description of a task—that can be lifted out of one program or document and reused in another. Five years ago, Carliner points out, the training industry was excited by the idea that whole libraries of custom e-courseware could be built simply by mixing and matching objects, "like buying your socks at Sears and your pants at Old Navy."

Some instructional designers warned that while useful reference material and job aids might be created that way, effective training courses couldn't—that is, not full-fledged skill-building courses. The nay-sayers were waved aside as dinosaurs, too infatuated with "bells and whistles" to grasp the future. But it turns out they were right, Carliner says, for reasons related to Horton's point above.

"The role of context is hugely important [in training]," and a collection of objects doesn't provide it, he says. "You can't cobble together a good course on the fly, much as some people would still like to believe they can."

6.
Designers need to understand learning styles

When coupled with technology, superficial awareness of learning concepts can be worse than ignorance. For instance, Carliner runs into people who declare that their e-learning courses accommodate trainees with either visual or auditory learning styles. What the proud creator means might be that the program can show text first and then pictures (for auditory

learners), or pictures first, then text (for visual learners). That betrays a fundamental misunderstanding of how learning styles work and why they matter, Carliner says. “It isn’t just a question of rearranging material.”

On the other hand, depending on what you mean by a learning style, some course designers now use technology to make important and useful distinctions that lead to better-targeted training. At Aetna Inc., the Hartford, Conn.-based insurance company, many business functions are handled by the Aetna Strategic Desktop (ASD) system, basically a customer relationship management program.

David J. Blair, Aetna’s head of curriculum development, explains that two different employee populations—customer service representatives and clinical people such as nurses—need frequent updates on new software added to ASD or new insurance products that must be processed by the system.

For both populations, Blair says, the updates build on skills and knowledge that already exist. But the customer service reps want training that is very brief and focused strictly on things they don’t already know. The question is, do they recognize what they don’t know? Blair’s team has created what he calls “Socratic” simulations that test the limits of their knowledge, not with multiple-choice questions but by asking them to complete simulated job tasks. How far can they go, and at what point do they get stuck?

The simulations “don’t just show if they eventually get the right answer but also how they reach the right answer,” he says. “Five years ago we didn’t have the tools or technology to do that.” By pinpointing skill needs for service reps, the simulations allow for training “that is shorter, more acceptable to employees, and that benefits the company.”

While these pre-training simulations are a hit with the customer-service people, Blair says they only frustrated the clinical staff. “The clinical people go into training situations wanting to know everything. They want more linear instruction,” he says. “It isn’t necessarily because they know less about the ASD system. It’s a different mindset.”

7. E-learning is more effective to the work it supports

We’ve gotten better at integrating learning into work flow. This goes beyond the issue of designing performance-support tools instead of training courses when appropriate, says Craig Marion, principal instructional designer for the learning division of SI International Inc. of Reston, Va., which designs information-technology products and systems, primarily for the federal government. Rather, Marion says, we now can build e-learning courses incorporating tools that actually change the way work is done.

For example, he cites an e-learning course that his team completed about a year ago to teach an accounting system used by the U.S. Marine Corps. While creating the training, the team saw that some of the work could be automated. It built wizards and calculators to simplify various steps in the accounting process. Those tools were delivered along with the courseware, and the course presented them as part of the standard process—which was, in fact, revised and improved.

In other words, Marion says, “We were asked to teach the existing accounting functions, but wound up providing tools that changed the way the functions could be done.”

If e-learning can not only teach a job but transform a job for the better, that’s a lesson worth absorbing.

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