E-Learning Development Tools: What Works™

An industry study of the market drivers, size, and business potential for content development tools.

Market Research Study

Bersin & Associates
June, 2003

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Study Overview

In early 2003, Bersin & Associates conducted a market research project to understand the market drivers, size, and business potential of the e-learning content development tools market. The objective of the study was to characterize the current market and potential opportunities for e-learning content development tools to help vendors make decisions on product strategy, partnership opportunities, and marketing investment. Specifically, we were targeting the following information:

- A characterization of the e-learning content development tools market including size, growth rate, and vendor shares
- Product usage, preferences, and spending patterns of customers building e-learning applications
- The composition and nature of course development teams
- Key challenges in courseware development and recommendations for improving current tools & processes
- Future directions for e-learning content development

Methodology

In late January 2003, email invitations to participate in a market research survey were sent to a random sample of approximately 9,900 OnLine Learning Magazine subscribers. All subscribers were US-based and had valid email addresses. Each recipient was assigned an ID number to take the web-based survey and had a chance to win an Amazon.com gift certificate upon completion of the survey. Response rates were high, with eleven percent (1,096) of the OnLine Learning subscribers completing the survey.

To supplement the quantitative findings, qualitative interviews with eleven individuals in the corporate, government, and higher education markets were conducted in the February-March timeframe. All individuals were responsible for e-learning initiatives within their organizations and had extensive experience in creating and deploying e-learning applications. Interviews focused on training methodologies, the development team and process, and tools in use.

For market data, we reviewed industry reports from the major research firms. Gartner and IDC provide the most useful data on the e-learning tools market. Gartner provided some interesting information on simulation tools and IDC on the size and potential of the e-learning tools market. These sources are quoted where appropriate under "Summary of Findings."
“We're really transitioning our e-learning course content from glorified electronic page turners to much richer, interactive courses,” said one of the course developers. She anticipates even richer media in the future, including audio and video, which today are not incorporated into courseware because learners are in cubicles. Learning could also be enforced even more effectively by building scenarios or case studies in the course to apply learners' knowledge.

The developer also noted that pure on-line courses may not meet the needs of many learners who still need personal contact or prefer paper. Thus she envisions more blended learning techniques to be used in future training. This could be in the form of a support person to contact after the course, or a document to hang in learners’ cubes to reinforce learning. The company's focus has swung from purely instructor-led to web-based training; the future will find a middle ground between the two.
Office Automation Supply Co.

**Company Profile:** A leading supplier of office automation equipment, including copiers, facsimile machines, data processing systems, and related supplies.

**Training Organization:** A departmental group that provides training for technicians who repair office equipment (e.g. copiers). Learners are employed by the company’s 800 dealers who provide service to customers. Training involves procedures for equipment repair and is delivered on CD-ROM and Internet. The learner population is estimated to be about 1,600 students. There is a single developer that produces 10 courses/year.

**Tools Budget for 2002:** $5K  
**Projected Budget for 2003:** Same  
**Time to Complete Projects:** Less than 1 month  
**Course Length:** 85% of courses in the 30-60 minute range, 15% in the 1-2 hour range  
**"Shelf Life" of Courses:** 12 months or longer  
**LMS Used:** Skillsoft  
**Amount of Courseware that is Internally Developed:** 100%  
**Number of Developers Typically Involved:** 1  
**The ratio of developer/ID/SME is for a typical course:** 1/1/1

**Tool Usage:** Flash is used exclusively for simulations and Dreamweaver used for most course content. Designer’s Edge is used to build templates that are populated by SME’s then imported into Dreamweaver automatically. A tool from Skillsoft is used for creation and delivery of assessments. CourseBuilder is used for "practice" tests but data is not tracked. The Skillsoft platform is also for LMS, assessment, and management of learning objects. Fireworks is used to add callouts to simulations and also for reducing the file size of graphics.

Rapid delivery is the most important criteria in building courses. Most are built in less than a month and don't need revision for at least a year. The Designer’s Edge template system for SMEs streamlines the process. The SMEs are a small group of technical writers within the technical publications group. The SME populates the template with text. Flash is used to develop simulations for how parts work together. Using these techniques, the time to create new courses has been reduced to less than 30 days.

A total of 5 SMEs provide content to one ID and developer for the whole department.
Aerospace Corporation

Company Profile: A global corporation with key business areas of systems integration, aeronautics, space, and technology services.

Training Organization: This is a 25-person departmental organization that provides electronic training under contract to the U.S. Navy. The courseware is used to instruct Navy personnel on the maintenance and use of complex machinery and equipment. The group also builds courses for use by employees and recently completed a large project for Six Sigma training. The group delivered 62 on-line courses in 2002 with a total staff of 10 developers, 9 IDs, and 12 SMEs (not full time to the department).

Tools Budget for 2002: $15K
Projected Budget for 2003: Same
Time to Complete Projects: 90% are completed in 1-3 months, 10% are completed in 3-6 months
Course Length: 5% of courses are in the 15-30 minute range, 90% in the 30-60 minutes range, and 5% are in the 1-2 hour range
"Shelf Life" of Courses: 70% of courses are revised in 6-12 months, 75% are revised in 12 months or longer
LMS Used: Thinq (Managers Edge used for CD-ROM delivered courses to the Navy)
Amount of Courseware that is Internally Developed: 80%
Number of Developers Typically Involved: 1
The ratio of developer/ID/SME is for a typical course: 1/1/1 (also 1 graphic artist and 1 QA person)

Tool Usage: The department uses the following products for building on-line courses (top three products listed first):

- Authorware
- Director
- Flash
- "Rapid" from Simulus is used for equipment simulation

The group has been building courses in Authorware for several years but migrated to Director because it’s more "web-friendly" and newer version work better with Flash. Flash is used as an animation tool and is also used by graphic artists for audio match-pointing with text bullets. Equipment simulations are built using "Rapid". Director is also used as an assessment tool. Productivity is increased by building templates and lessons in Flash and integrated into Director.
The group is evaluating the use of an LCMS system (LogicBay) in order to leverage the work done by the technical publications department. Using this tool, the SMEs could verify quality once and the material could be used for technical publications and multi-media delivery.

The major considerations in developing courses tended to deal more with the quality of the media and engaging nature of the courseware. Deadlines are less of a consideration since the material must be instructionally accurate due to the mission-critical nature of the courses. Getting time with subject matter experts, length of time to build the course, and complexity of building simulations are considered the top challenges faced by the group (in order of decreasing priority).

A typical project team consists of one developer, ID, graphic artists, SME, and QA person. The group relies on a pool of SMEs that also serve as instructors for in-class courses. Collaboration among developers is made easier through the use of templates in whatever tool is being used.

The group has built about 12 web-based director courses with Flash animations and also maintains a library of 80-100 Authorware lessons on CDs that are being repurposed for web delivery.
Document Management Co.

**Company Profile:** Multi-billion dollar global provider of integrated mail and document management solutions.

**Training Organization:** This is a 24-person group that provides soft skills and product training to the company’s sales force of 2,400. The group produces 20 courses/year dealing with a variety of subjects for the sales force.

**Tools Budget for 2002:** $25K  
**Projected Budget for 2003:** Same  
**Time to Complete Projects:** 1-3 months  
**Course Length:** 25% of courses in the 30-60 minute range, 75% in the 1-2 hour range  
**"Shelf Life" of Courses:** 25% of courses are revised in 3-6 months, 75% are revised in 12 months or longer

**LMS Used:** Docent

**Amount of Courseware that is Internally Developed:** 95%  
**Number of Developers Typically Involved:** 1.5  
**Ratio of developer/ID/SME for a typical course:** 1.5/2/5

**Tool Usage:** The sales training department uses the following products for building on-line courses (top three products listed first):

- Authorware
- Dreamweaver
- Flash
- Hot Potatoes
- ViewletBuilder
- RoboDemo
- Homesite
- Docent Outliner
- Lectora Publisher (evaluating)

The skills of the developer often dictate which product will be used for a particular purpose. The group we spoke with also builds training for IT systems that are used by sales people so they use Robodemo for screen captures and Flash for building the actual software simulations. Authorware does seem to be the preferred general purpose tool. Some developers have chosen to build entire courses in Flash although this is the exception.
About Bersin & Associates

Bersin & Associates is a leading provider of corporate and vendor consulting services in e-learning technology and implementation. With more than 20 years of experience in e-learning, training, and enterprise technology, Bersin & Associates provides a wide range of services including product development, product marketing, industry research, corporate workshops, corporate implementation plans, and sales and marketing programs. Some of Bersin & Associates’ innovations include a complete methodology for LMS selection and application usage, an end-to-end architecture and solution for e-learning analytics, and one of the industry’s largest research studies on blended learning implementations. Bersin & Associates can be reached at www.bersin.com or at (510) 654-8500.