Video Content

Mission Objectives

Emerging Tools for Distributed Learning

DoD CONTINUES TO OPT FOR DISTRIBUTED LEARNING, AND DEVELOPERS OF TRAINING CAPABILITIES CONTINUE TO OFFER UP EFFECTIVE SOLUTIONS.

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The Department of Defense has been using the concept of distributed learning for many years. "The ability to get updated and refreshed information in near real-time is the valuable aspect [of distributed learning]," said Patrick Devlin, vice president of market development at Blackboard. "Once you're actually out in theater, it is important to have the ability to instantly access the latest information, any updates and any policy changes that have taken place since you completed training."

Though the idea of keeping warfighters abreast of information even while they are deployed is not new, advancing technologies and new resources alter how distributed learning takes place. Newer technologies like mobile devices and concepts like virtual worlds allow developers to integrate more effective training capabilities.

Patrick Devlin

Vice President, Sales & Market Development

CURRENT TRENDS

"There's been a lot of discussion about mobile learning over the years, and to finally see the opportunity mature to the point where the smartphones are ubiquitous enough to make the investment really pay off is exciting for everybody," Devlin said.

He said everything doesn't always translate well from a Web-based environment to a mobile footprint. This is why special consideration must go into how mobile devices assist learning.

"It's not just reproducing the same content and trying to replicate it, just assuming that people are going to use that device the same way they would use a desktop browser, for example," Devlin said.

Devlin also noted a trend toward breaking content down into much smaller pieces instead of aggregating long-form sections together. "The mobile devices really demand that as well. I can't envision a lot of people sitting down for hours on end going through content on a mobile device." The way people use mobile devices is therefore starting to match the way courses are being delivered.

He said text-based applications would not be a great use of mobile learning. Mobile devices don't serve learners well when they are forced to manipulate and read through a lot of text on that footprint.

"But I think it's an ideal delivery vehicle for video-based content, and in fact, we see an uptake in video-based content in general within our client base," he said. "That's another one of those trends that's the result of a number of forces coming together right now that really make it an ideal time for the mobile market to take off."

Because video-based content has become a more feasible element of distributed learning, the use of real-time short-length videos

is another trend Devlin is seeing. The high-end production of centralized development of that content is no longer useful, he said. Now the field is seeing more authentic video that is less staged and being captured with cameras and uploaded. "The information just doesn't have the shelf-life that it once had, so in order for the content to be relevant, you have to almost create the content in near real-time." Devlin said he sees this not only with military but across the board in all of the company's clients.

NATURE OF MOBILITY

One must also consider the various limitations of mobile devices when developing training capabilities. Mymic LLC has been talking about learning on mobile devices for over two years. "Mobile devices are much more limited than a standard keyboard and mouse, and you have to take that into consideration when developing the training solution," said Phil Jones, vice president for technology development at Mymic.

"Consider the fact that with a mobile device, suddenly every soldier has the ability of becoming their own training manager," Jones said. Then developers of training capabilities must find a way to integrate organizational training requirements.

Computational power and the network capability must also be considered, said Tom Mastaglio, president and CEO of Mymic. "They're like computers: They're going to get better," he said. "I have to believe that

with miniaturization and as people figure out how to speed things up, we'll get there."

VIRTUAL WORLDS AND LEARNING

Mastaglio said that many developers are putting a lot of emphasis in serious gaming, but Mymic puts emphasis on a training system, not just an environment. He noted that configuring the virtual worlds with the right capabilities to train people is the important part of virtual worlds and learning, not simply having the virtual world.

"Having a virtual world alone is insufficient. You really need the training support piece, which includes the scenario, the ability for after action review, and the right models and capabilities in the virtual world. We're making progress among those lines," he said.

Jones expanded on this idea. He said Web-delivered learning must go more into an experiential, immersive environment. So developers of training capabilities need to make "not simply a virtual world with learning material spoken by an avatar, but create an experience such that the experience walks the learner through the process."

NEW FEATURES

Developers are tasked with creating training capabilities that are as effective as possible, and that often is affected by how realistic the graphics or scenarios are. One company has introduced a new feature that increases the reality of the training experience. The Learning Retention Company LLC, in conjunction with Genaudio Inc. in Santa Monica, Calif., has made available virtual sound using spacial audio technology. This technology is capable of placing the sound anywhere within the listener's field of normal hearing. The result is an audio reality never before experienced, as listeners cannot distinguish between the recording and live sound. Virtual audio can be played in simulations using conventional sound devices. This technology is best used with stereo headphones, which matches the individualistic nature of mobile learning, but is also effective using regular speakers.

"It's a very exciting technology," said Peter Gambacorta, president and CEO of the Learning Retention Co. "It's not surround sound—this system can actually place electronically the sound in a certain spot, or cause it travel anywhere in a multidimensional sphere to replicate an airplane passing overhead rather than from right to left."

Gambacorta said it is so realistic that the learner can be made to feel as if an avatar is whispering in their right ear. This technology is already available for incorporation into all types of simulations through the company.

Blackboard has also made new releases, including version 9.1 of its platform. "9.1 represents a huge new direction for us in terms of having a very modern Web 2.0 interface and integrating a lot of the new social media tools into the learning environment," Devlin said.

"Between the mobile and the need to integrate social learning and social media into the learning itself—those are going to be the two biggest areas of focus for us in the near-term."

FUTURE TRAINING DELIVERABLES

Mymic has a couple of deliverables up its sleeve. Jones said the company will be delivering a prototype called GaMeTT to the Air Force. Designed for medical team training, GaMeTT is a virtual environment that learners can log into remotely for training sessions. Mastaglio said the system will enable interaction among teams and learners to stay proficient in their skills. He shared that

this prototype will be tested this July with Air National Guard Expeditionary Medical Support units.

Mymic will also be closing out the year by delivering a prototype called CoMeTT. This system will train teams that work across collaborative networks in organizational leadership. CoMeTT is also expected to be delivered within 12 months.

Blackboard's Devlin shared that the company will continue to build out its mobile strategy. "We're integrating our mass messaging and multimodal communication into our learning platform so that people can be automatically notified of new content and learning opportunities and learning activities."

He also expects DoD to broaden its use of mobile devices in its distributed learning programs. "The content is already there. There's just never been an effective way to deliver it. So I think there will be a lot of activity very quickly."

Devlin emphasized the place of distributed learning in DoD operations. "The primary mission we're trying to support is obviously people in theater. That's where mobile has the greatest opportunity, so that if somebody is in theater, away from a classroom environment, they are able to access the information they need, when and where they need it and in the right format. That is really the challenge we're faced with right now." ✸