

## **Ernst & Young Uses Avatars to Test the Use of Virtual Worlds as a Way to Enhance Training for New Auditors**

*By Beth Ellyn Rosenthal, Editor, Outsourcing Journal March 2009*

The young college graduates, now new members of [Ernst & Young](#)'s auditing team, faced one of their first audit assignments: testing the accuracy of year-end physical inventory counts taken by personnel at a cookie manufacturer. Many inventory items like raw cookie dough, sugar, and chocolate chips were stacked on large shelves throughout the warehouse, and some items were in boxes on shelves 60 feet in the air.

Learning how to audit physical inventories is a critical accounting skill because they are an important element in determining actual profits for the year. The auditor's job is to test the accuracy of the company's recorded inventory counts. To do that, the young auditors had to navigate an unfamiliar warehouse and randomly select inventory items for test counting.

As the students moved throughout the warehouse, they faced many of the real-life issues that may arise in an actual inventory. Students stumbled over cases of flour and other raw materials that appeared to have been damaged by moisture. Should they count these as inventory even though they appeared to be unusable? Should the boxes of cookies on the shipping dock waiting for the next day delivery count as inventory? What about the cookies baking in the large ovens? Are they counted as inventory? When the students were done, they had the opportunity to compare their inventory decisions and the logic surrounding those decisions with those of more experienced auditors.

However, this first audit was not at a real cookie manufacturer. It was within Ernst & Young's island in Second Life. "You'd be surprised how realistic this experience is," says Michael Hamilton, partner and chief learning and development officer in the Americas. The auditing firm is working with [Affiliated Computer Services \(ACS\)](#) and other virtual world consultants to explore this new way of learning. (For a three-minute visit to the factory, go to <http://2b3d.net/eymovie.htm>.)

Hamilton says [Ernst & Young](#) hires about 6,000 people each year throughout the Americas, which are comprised of a combination of new college graduates and experienced hires. As part of E&Y's people development process, E&Y constantly challenges itself to find the "best" way to develop its people for the skills they need to serve their clients' needs. Last year, E&Y wondered if instructor-led classroom training was the best way to teach certain "hands on" auditing skills to Gen Y, who grew up with computers and simulated worlds.

Last year the firm completed a generational study, which pointedly asked Gen Y to list the differences between themselves and the baby boomers. "We learned this group has a greater comfort and confidence with technology," says Hamilton. The team responsible for creating audit training within E&Y proposed a 3-D virtual world learning pilot to see if virtual world technology could enhance the learning experience when compared with traditional classroom training.

[ACS](#) brought in virtual world expert Tony O'Driscoll, a professor at Duke University, and virtual world creator, Randy Hinrichs of 2b3d, to create an island in Second Life that could accommodate a pilot program. [E&Y](#)'s audit team decided to create the cookie factory to simulate a real-world experience. The project team divided the training class in two: half the group took the traditional classroom training, while the other half plugged in their headsets and headed off to Ernst & Young's island on Second Life.

Hamilton says one of the "ah ha" discoveries was that the young auditors who completed a simulated audit in Second Life were slightly less confident than their peers who completed the

traditional training. "We suspect the auditors who participated in the traditional instructor-led training had an unwarranted confidence in their ability to conduct a physical inventory count," he reports. "The virtual learners had more anxiety because the simulation demonstrated they could not always anticipate real-world issues. This anxiety caused them to find the right person and ask the right questions. When you are learning a new skill, asking questions is an important part of the learning process" says Hamilton.

Hamilton, who is in his mid-50s, says he and the audit learning team are pleased with the pilot. Many were skeptical when they first discussed using virtual worlds for enhancing the learning experience. Once the E&Y team had the opportunity to see the technology in use, they quickly began considering other areas of learning and people development where this technology might create a richer learning experience.

However, there are challenges whenever a company introduces new technology. Because this was a pilot, the participants entered Second Life in front of the accounting firm's firewall, which required the use of wireless cards. At times, this was a clumsy, cumbersome process that was agonizingly slow. As Ernst & Young considers a permanent platform, it will likely be behind the firewall. In addition, some business computers didn't have the necessary graphics card, so the accounting firm had to upgrade them.

Aside from the technology considerations, [ACS](#) and [E&Y](#) had to provide the support needed to introduce learners to a new platform. Learners must first build their own avatars and then undergo an orientation. E&Y built an orientation center to teach visitors how to walk, talk, and move around in a virtual world environment.

The firm is taking the next six to nine months to see how the supporting technology advances. "The technology is quickly matching its potential," says Hamilton. But he notes that one cannot wait until the technology is perfect. "If you wait for perfection, you will likely be late to the game," he believes.

### **ACS extends outsourcing to virtual worlds**

[ACS](#) Learning Services, a part of ACS' Human Capital Management Solutions group, offers the stereotypical portfolio of outsourced learning services from transactions to curriculum and content development. The group's goal, according to Caroline Avey, an ACS learning strategist, is "to identify the client's need and then find a learning solution to support that."

Avey, who joined [ACS](#) two years ago when the Dallas-based provider purchased Intellinex, a learning services company where she worked for 15 years, is responsible for Web 2.0 learning strategies. She works with Lyn Maize, director of market analysis and innovation for ACS Learning Services. Together they explore "what clients are really wondering about."

She became interested in 3-D learning one night when she and her teenage son went on Second Life. They moved around together but then her son got lost. "I got really upset because I couldn't find him," she recalls of the maternal panic. Her husband said, "He's six inches away from you! How can he be lost?" That's when I experienced the total sense of engagement in 3-D," Avey recalls.

### **Using 3-D learning for meetings**

Avey says 80 percent of her clients still want [ACS](#) to produce courseware for instructor-led, face-to-face training. But "flying people around the world for short training interventions has gotten difficult and costly today," she says. In addition, companies don't want their employees gone for four days.

So the learning team asked its clients: "Why are you still making this kind of investment? The answer was the huge need for people to interact," Avey says.

While online courses were clearly cheaper, there was no way for colleagues to share war stories or learn from one another. "They couldn't ask questions or get feedback," she explains. [ACS](#) sees 3-D learning as an additional solution. "It's a way to defy geographic boundaries and still have people engage and interact," says Maize.

For example, in 3-D people at a meeting can see everyone else (who are avatars) seated around the table on their computer screens. People converse using their headphones. "Attendees come away with a sense of camaraderie," reports Avey.

### **Helping adults learn**

Maize says [ACS](#) clients have used the technology successfully for role playing. The facilitator called on avatars to be customers or suppliers. Observers assessed how well the interaction went. "The employees had a powerful learning experience applying real world knowledge to their assigned situations," she says.

Avey says the goal is to "give learners an experience in life situations, so they can replicate it in the real world." That's just what [Ernst & Young](#) did at Grandmother's Cookies.

Currently 65 percent of learning is on the job. How do you capture that learning if you're trying to map a process or procedure? "3-D learning captures everything because it's digital. It's a great way to record the expertise of someone who's retiring or moving on to another assignment," Avey says.

3-D learning has one additional benefit, according to the ACS exec. Adults' knowledge retention doubles if they are engaged in the content, she reports.

Currently, [ACS](#) has two other clients besides the accounting firm "actively engaged" in 3-D learning. Maize says there are a number of others interested in adding it to their learning matrix. "Many more are just putting their toes in the water on this," she says.

### ***Lessons from the Outsourcing Journal:***

- Ernst & Young found 3-D learning better prepared new auditors by giving them real-world experience. It compared the results with new auditors who took a traditional instructor-led class.
- 3-D learning is a cost-effective alternative to on-site training sessions because it can deliver the two goals of the meeting: training the employees and creating camaraderie and collaboration.
- 3-D learning captures learning digitally, providing a record of what has been informal, on-the-job training. It is a good tool to capture the knowledge of retiring employees.
- 3-D learning is a good way for adults to learn because they can retain more knowledge.
- Don't underestimate the time and effort needed to introduce learners to this new platform. Plan to help your learners through the initial set-up and orientation. Once they've been properly introduced, most enjoy the experience.
- Consult with others working in this space. Old instructional design approaches simply don't work in the virtual world.

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