

fter being asked to oversee a sweeping enterprise e-learning implementation for the U.S. Internal Revenue Service, Gerrie Wydeven knew how to do her homework. She immediately sought advice from people whom she considered to be the experts—those who had completed or were carrying out similar endeavors.

"Basically, I went to conferences, talked to people, did some reading, and got some idea of the best practices," explains Wydeven, e-learning program leader at the IRS.

The advice helped, but few had ventured where Wydeven planned to go in fostering an enterprise-wide e-learning system that would serve 110,000 employees. Wydeven and other members of Strategic Human Resources, a group responsible for establishing HR policy throughout the IRS, took the lead in developing an agency-wide partnership with the business units and the information technology staffs to roll out the effort. It was an ambitious rollout one of the largest and most sophisticated among the federal agencies that are rapidly adopting e-learning as part of broader e-gov initiatives. In addition to the many technical hurdles they face, Wydeven and her team needed to convince the training and development departments within each of 12 separate business units to promote the switch from predominantly classroom-based training to online learning to their business clients. Even with good advice from conference attendees and a combined decade's worth of experience among members of the Strategic Human Resources Group, the effort has run into its share of stumbling blocks.

"Even if you come on board with experience, expect barriers and challenges," says Dee Olsen, who, as assistant



director of advanced learning technologies, is a pivotal member of Wydeven's team. "The key is to keep your focus," he says. "Many times, we've had deal breakers that we weren't sure we'd overcome."

Nearly two years after launching the initiative in May 2001, the IRS continues to add to hundreds of externally developed e-learning courses and internally developed products and is in the process of implementing an enterprise learning management system to support the full array of instructional and performance support products. Although the majority of the substantial amount of training that occurs daily at the IRS is still classroom-based (only 17 percent of training hours are currently delivered electronically), the ratio is expected to flip-flop within the next few years as the agency pursues the goal to deliver 70 percent of training electronically by 2007.

Wydeven, Olsen, and Jay Walters, the enterprise learning management systems team leader, took time out recently to speak about the deal breakers and deal makers they've encountered over the past two years in their efforts to establish an enterprise-wide e-learning program.

Identifying needs

In the initial planning stages, the Strategic Human Resources group went to each of the operating units within the IRS to find out their training and education needs and how to help them reach their business objectives.

"We engaged the business units in identifying their functional requirements for a robust learning management system," says Olsen. "We gathered over 200 functional requirements and categorized them into different capabilities we'd need to provide."

The requirements-gathering process helped the group acquire its primary initial software, a learning management system. The LMS had to support content from different sources but also integrate with the IRS's existing IT infrastructure. The IRS had already purchased hundreds of

The Internal
Revenue Service
brings training
into the 21St
century with
enterprise
e-learning.

By Martha Gold

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asynchronous e-learning courses from various external providers, including SmartForce (now SkillSoft), SkillSoft, and MicroMash, and had developed a variety of products internally. To be successful, the group determined, the assortment of e-learning content, as well as the classroom courses, needed to be managed through a single system. As the initiative took shape, specific requirements, standards, and specifications for e-learning administration, scheduling, rostering, product development, and design were implemented to fully leverage the LMS's functionality.

Another, trickier functional requirement involved integrating the LMS with HR systems, which the group determined would result in substantial efficiencies. The LMS, developed by Plateau Systems, was chosen in part due to the ability to integrate it with a PeopleSoft HR system that will soon be used by the IRS. Walters, who had already successfully integrated the agency's in-house legacy training administration system to the existing HR system, was tapped to oversee the LMS implementation. The technology was different, but Walters says the issues involved in integrating the LMS and HR applications were similar to those she encountered with the legacy system. With help from integration experts at SAIC, IBM, and Vertex, Walters is integrating the two systems using a series of internally developed interfaces that will provide new-employee information and continuous update of all employee data.

The interfaces will provide such basic employee information as business unit and geographic location, job title, series, grade, assigned manager, and email address. For employees completing training, the completion data will interface back to training's existing database until the LMS is implemented servicewide. Over the long-term, Walters and her team are looking for the LMS to be fully integrated with the treasury's new personnel system, HR Connect, a PeopleSoft product.

"When we started this initiative, Jay wasn't part of our organization," says Olsen. "We didn't have the necessary staff to carry out an LMS implementation. We had some contract dollars to hire integrators, but we had significant worries about being able to pull this off without some additional insight and resources. It's fortunate that we have Jay and her team to help make this happen."

Culture change

Untangling technical problems is one part of the IRS's challenge in converting most of its training to e-learning. The initiative also requires getting employees who are used to leaving their desks for hours, days, and sometimes weeks for training, to now access courses and other work-related information from their desktops. Support from the IRS's upper echelon of management helped the Strategic HR group get buy-in from the business unit leaders, who in turn are convincing employees to adjust to the new ways of learning.

"One of the major change elements has been strong leadership, which we've had from our senior leaders, who expect us to move smartly and quickly towards e-learning," says Wydeven. "Even with strong executive-level support, the transition to e-learning has been incremental. However, Wydeven says, there have been encouraging signs that the pace of the transition is accelerating. For example, the agency's continued professional education courses, many of them developed internally, are widely used to keep IRS employees abreast of tax law changes and other program updates. The courses are being steadily converted from classroom-based formats to e-learning products.

Getting there

The sweeping e-learning initiative under way at the IRS was preceded by nearly two decades of dabbling in computer-based learning.

"We've had components of e-learning for a long time," explains Olsen. "We started to experiment with blended solutions 20 years ago with what we called an automated training system." About 12 years ago, the IRS expanded its automated training programs by developing its own legacy system, which included the Administrative Corporate Education System, an internally developed training administration system. ACES is a menu-based system that tracks training requirements, budget planning and accomplishment, classroom scheduling, instructor certifications, and employee training history. Because of the system's functional limitations (it isn't Web-based and doesn't launch or track e-learning), the IRS several years ago began casting about for a more powerful, effective replacement.

At the time, several divisions within the organization had already begun implementing their own Web-based programs, such as the School of Information Technology, which launched Web-based programs through its Austin campus. The programs consisted of off-the-shelf products from SkillSoft and SmartForce for IRS and treasury-wide users. Additionally, the Strategic HR group had begun developing stand-alone electronic performance support and e-learning solutions for various business units. And the IRS's Interactive Video Technology network had been built out to support more than 400 sites throughout the agency and was being used for synchronous learning classes.

"A group here or there would experiment, but it was not an enterprise kind of thing," says Olsen. "A new commissioner came in and, with the U.S. Congress, began to emphasize modernizing the IRS."

That goal spurred the Strategic HR group to launch the enterprise e-learning initiative, in large part to meet senior leadership's goal to curb travel costs related to training and to invest the savings into t&d. "The agency's senior leaders were looking at how training dollars were being spent and discovered that 70 percent of the funds invested in training were being used for travel and only 30 percent for training and development," says Olsen. "They wanted to reverse those numbers." The result was the current push towards a comprehensive e-learning program.

"It has been a very coordinated effort with all of the business units," says Walters. "Before, individual units would go off on their own. Then we made a real effort to move forward together."

The Strategic HR group still has several tasks ahead, culminating in a "go live" date with the new system last month. To prepare for that, the group spent the past 18 months developing standards, providing assistance to the business units, and setting up an internal architecture that will support the technology they'll be using once the LMS is launched. In the meantime, the various e-learning courses it has amassed are far from collecting dust. "All of the courses by SkillSoft, MicroMash, and SmartForce, as well as the homegrown and internally developed products, have been supported by interim system capabilities so they're not just sitting there waiting for the LMS to be installed and used," says Wydeven.

The IRS has also been making use of real-time collaboration tools, such as Centra, to host short instructional programs, such as the CPE courses. That format enables the business units to create a virtual classroom experience that can include expert instructors. Use of

Centra to deliver CPE and other training programs has more than doubled over the past year, resulting in significant cost-savings related to travel expenses.

Tagging for reuse

The IRS is implementing enterprise e-learning in three phases.

Phase 1. This involves laying down the foundation for the initiative by building a technology infrastructure, establishing product development standards and policies, and putting together various governance and oversight processes.

Phase 2. Called Changing the Way We Learn, this phase involves organizing learning and knowledge content to be accessible by the system.

Phase 3. In this third and most ambitious phase, the IRS will strive to integrate learning with actual work performance, enabling employees to get just enough information exactly when they need it in the context of doing their jobs. This phase is called Changing the Way We Work.

One of the new standards for product development is to chunk the content into smaller pieces. That will allow information to be reused for multiple formats, including use in a performance support context.

"We have a lot of customized content that's internally developed and designed mainly for the classroom," says Olsen. "Whether it's for the classroom or e-learning, that content can be repurposed or reused between business units. Rather than have each unit develop its own content, we wanted to make sure the content was available for reuse across business unit boundaries. We developed a metadata tagging schema that will label information to a detailed level."

Eventually, the IRS wants to provide employees access to specific information that matches an individual's unique skill and competency needs. Using the LMS's competency management capabilities is an important element of that strategy. "Profiling will tell us a lot about that individual and his or her needs in the organization," says Olsen. "We're setting up the foundation to make it personalized for each employee."

Spreading the benefits

In addition to making content available to the entire organization, the IRS plans to make the content accessible to the entire federal government through

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GO Learn ◄ golearn.gov News You Can Use, October, T+D in an effort to broaden its resources and avoid redundancies in purchasing training products.

"We're investing significantly in acquiring new content, and we want to maximize that investment so that it has broad use," says Wydeven. "One way to ensure that is to design the content so it can be picked up in small chunks, as well as by entire instructional products—depending on the needs of the business unit calling for that product. We're trying to look ahead 12 to 24 months to where we want to be in our strategy and make sure we're positioning all elements of our implementation to achieving those goals."

The IRS is setting standards for product development to enable it, once it has a LMS in place, to distribute content in different amounts and at different levels. Wydeven says the group decided against purchasing an LCMS in the first phase of implementation. "We hoped that when we purchased an LMS it would come with the ideal LCMS component," she notes. "We found that's not the nature of the current practice, particularly in terms of an open architecture. So, we're looking at this as a future acquisition.

The IRS has also been working with the Advanced

Distributed Learning Co-Lab to better understand use of SCORM interoperability specifications and to address instructional design issues related to its newest release, SCORM version 1.3. "It's enabled us to set interoperability standards that we'll comply with, and we require compliance from any vendors we work with," says Olsen.

Olsen and others plan to use their own experience to partner with other segments of the federal government, such as GO Learn, to implement additional enterprise e-learning initiatives.

'We're even going so far as to provide a consistent LMS solution across the government in partnership with the Office of Personnel Management. When we selected our LMS, we negotiated to obtain licensing for the government using the GO Learn," says Olsen, referring to the recent addition of Plateau Systems to the government-wide GO Learn e-learning program managed by OPM. "What we're doing, we hope, will help support what's happening across the entire federal government." TD

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