

Weaving a Training Web

By Sam Vulopas

Imagine an engineer online at home, at the office, or at a customer's location. To the casual observer it may appear that this person is merely surfing the Web but, in reality, he or she is enhancing his or her technical knowledge by interacting with a Web-based training session.

What is Web-Based Training?

Web-based training (WBT) is an innovative approach to learning. Internet technology and methodologies transform training into a system that presents live or packaged content in a structure that allows self-directed and self-paced instruction on many topics. WBT facilitates intellectual interaction, evaluates informational processing skills, and relates cognition patterns, activities, and performance to suggest alternative resources such as courses, publications, or hyperlinked information that may enhance the learning experience.

Technically, Web-based training uses HTTP protocols to transport information between the training server and Web clients. The interface for the online user, anywhere in the world, can be a standard Web browser, a Web browser customized with special features, or a unique Web application. Trainees complete their courses connected to a training server, which can automatically track a broad range of training information. This information ranges from basic data about the courseware accessed, to such detailed information as how a trainee answered individual test questions and how much time he or she spent in each module.

Advantages and Possible Limitations of Web-Based Training

What advantages does Web training offer? What limitations might favor classroom-based training?

The flexibility of Web-based training encourages trainees in an already overbooked schedule. They like the concept of participating in only the modules they need, in the order they need them...a begin-in-the-middle-and-end-at-the-beginning approach, if that is what the trainee desires. Web-based training also allows trainees to make mistakes and learn from them in a safe, non-threatening environment. The ability to access and review reference materials also reduces the burden of immediately mastering a topic.

For many software businesses, the single most important benefit of Web-based training is the reduction of overall expenses. The elimination of costs associated with student travel, lodging, and meals are measurable and often significant, not to mention the reduced time spent away from income-generating tasks. Thanks to Web-based training, expanding an engineering



staff requires much less of the senior engineers time to conduct the fundamental training courses.

Advantages

- ✓ Delivers training content using standard Web browsers
- ✓ Offers flexibility in schedule and order of courses
- ✓ Presents self-directed, self-paced instruction
- ✓ Provides a safe, non-threatening learning environment for trainees
- ✓ Delivers current content (without republishing or redistributing materials)
- ✓ Reduces overall expenses relating to travel, loss of productivity, and on-the-job training

When reviewing your training needs, there are a few considerations to keep in mind. WBT eliminates traditional face-to-face contact, requires significant bandwidth, and mandates particular browser/software products and patches. Despite the lack of face-to-face contact, e-mail messages among trainees, comments posted on message boards and chat rooms, and live communications via videoconference links greatly minimize many of the drawbacks associated with the lack of real-time interaction with the trainer.

Without adequate bandwidth, the trainee may experience slower sound, video, and high-quality graphics, thereby restricting instructional

Web-based training allows self-directed and self-paced instruction



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methodologies. However, the rapid improvement of hardware and broadband connections around the world makes this potential limitation a rapidly diminishing problem. Some companies may not have the required software, which definitely restricts instructional methodologies. However, through the purchase of new workstations or software upgrades, companies automatically receive the latest Web browser versions with the requisite plug-ins for sound, animation, and video.

Possible Limitations

- Eliminates face-to-face contact
- Requires significant bandwidth
- Mandates particular browser/software products and patches

Summary

Web-based training is a viable training method, available to most anyone, anywhere, anytime. The benefits far outweigh the limitations. Advances in network technology and improvements in bandwidth are enhancing capabilities for increased multimedia access. Workstations and Web browsers that support animation, interaction, conferencing, and real-time audio and video capabilities offer unparalleled training opportunities. One day in the near future, trainees around the world will communicate real-time with each other through full-screen video.

Currently, BASIS is creating a WBT system that expands the classroom-training program. This training system consists of four skill levels containing ten to fifteen topics. Subscription-based pricing allows the user unlimited access to all topics in the subscribed level. Individual topics are available to non-subscribers for a per topic fee. 

Go to www.basis.com/events/training today to get more information!

