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## **CDROM VS. THE WEB: GUIDELINES FOR CHOOSING**

***By David T. Bill***

### **INTRODUCTION**

As technology advancements race forward, organizations have an increasingly wide variety of vehicles to deliver instruction, devoid of the shackles of the traditional classroom paradigm. It seems as if new breakthroughs happen each week, which enable the development of global classrooms and learning environments.

Organizations continue to look for vehicles to boost their employees' proficiency at job tasks. They are often ready to jump on the new technology bandwagon before they have assessed their organizational environment and program objectives.

Such is the cases with web based training (WBT). Many are rushing to embrace this medium for delivery, before they really know the difference between WBT and CDROM Computer Based Training. Let's take a look at what the difference is between the two.

### **CBT vs. WBT**

Most are familiar with the CBT, which is CDROM delivered. As with both formats, each may contain multimedia elements such as audio, video and animation. Where the two part company is in the source of those media elements.

Typically, CBT plays media files from a CDROM or the computer's hard drive. This provides advantages as well as disadvantages (See Table 1). If your course content is relatively stable, you may prefer CD's, but if the content is dynamic or if your target audience is mobile, WBT may be the most cost effective.

Currently, there is a gap in playback performance when using multimedia elements. If playback speed is important, or if your course will contain a lot of audio and video, you may choose the CD. Depending upon the design of the application, WBT will play media files entirely over Internet (or Intranet). Media files must be downloaded to the user's computer from a host server.

Depending upon the transfer speed of your equipment involved, i.e. modems, media/web servers, Internet service provider, etc., the student may experience temporary delays when downloading such things as audio, video and graphics. At this point in time, the two most popular methods to combat playback lag are the use of streaming A/V and designing a hybrid approach.

Streaming Audio and Video technology has made impressive improvements in playback quality in the past couple of years. The advantage to using this technology, over downloading an AVI or MPEG file, is that the user does not have to wait until the entire file is downloaded before viewing. The audio and/or video are broadcast from a media server to the client computer. The server and the client require proprietary software to facilitate the transfer. The drawback with this method is, that it can be affected by the amount of user traffic.

The hybrid approach would incorporate the use of a CD to store large files, such as audio and video. This would increase the performance of applications that are rich in multimedia elements. A third solution would be to download an entire course with all of the associated media. Although this would increase the playback performance, it would also increase the amount of time required before viewing the course.

### **WHICH IS RIGHT FOR YOUR ORGANIZATION?**

The preceding conversation has only covered the major points to consider when choosing a vehicle for your organization. Beyond the technology aspects, you must consider various organizational and cultural elements before selecting a technology. Consider the following questions when analyzing your environment.

### **IS THE TARGET AUDIENCE LOCAL OR IN MULTIPLE REMOTE LOCATIONS?**

If your target audience is local, you may want to consider CD or LAN based delivery. But if your organization has or is willing to develop an Intranet to support the traffic to the training site, a WBT-style design may be the solution.

On the contrary, if your delivery will be to multiple, remote learners, then WBT would probably be the best solution. One of the advantages of web-style delivery is that changes can be made to the course on a server, which in turn provides the current version to all learners immediately. CDROM, as with textbooks or other similar types of training material, requires pressing a new version and distributing it to all of the remote locations.

### **IS THE TARGET AUDIENCE MOBILE OR STATIONARY?**

Anyone, who has tried to develop training for a highly mobile group such as sales or regional management, knows that it is almost impossible to convene a class that fits everyone's schedule. CDROM based courses provides a means to develop your training "To Go". But you do not escape the barrier of ensuring that everyone has the latest version of the course. With WBT, you can finish the course updates in the afternoon, send an email to those who require the information, and later that evening they can take the view the course in their hotel room.

Here's a practical example. A national restaurant chain continually uses different products in test markets across the country. The products require preparation, and therefore the personnel in the various test market restaurants require training. WBT would provide a means to rapidly deploy multimedia training in product preparation to the remote target audience, without the expense of CD production and distribution. This example would also be applicable if the organization were multinational.

### **IS YOUR CONTENT STATIC OR DYNAMIC?**

As mentioned before, WBT provides a vehicle for rapid deployment of course content modifications. If current information is a critical program objective, then WBT may be the appropriate choice for delivery. Courses that are not as sensitive to time could use CDROM as a delivery platform as well.

### **DOES THE COURSE CONTENT REQUIRE COLLABORATIVE LEARNING?**

Although, some courses incorporate a facilitated session, typically, CDROM courses are taken in a stand-alone mode. If the course content lends itself to a collaborative session, it is no problem to setup a local facilitation. But what if the learners are remote, mobile and in different time zones?

An asynchronous, facilitated discussion is possible in a web-based design. The course content could be delivered on CDROM or over the net, depending upon the content's sensitivity to time. In this model, we get the best of both worlds, self-directed learning as well as collaborative.

### **DO YOU HAVE RESOURCES TO PURCHASE OR LEASE THE ADDITION EQUIPMENT REQUIRED FOR WBT?**

Here's the question of the day. Often organizations are seduced by the features of latest technology, without considering the infrastructure that's required to support it. Although WBT offers a lot of flexibility, it does require additional equipment and software, depending upon the features that you plan to incorporate into your course (i.e. audio, video, student record database, etc.)

### **WHAT IS YOUR RELATIONSHIP WITH YOUR IS GROUP?**

Don't laugh! Unless you are planning to lease server space from an outside source or maintain your own web server, you will probably want to be on best of terms with your Information Systems group. If the training site is to be maintained internally, careful planning of the delivery infrastructure is necessary in addition to your course development efforts. In your planning, be sure to include such items as additional software and hardware, necessary bandwidth to the Internet, firewall limitations, database and course maintenance, and site security.

### **CONCLUSION**

Which every vehicle you find most appropriate, don't forget your target audience's limitations. It's great to develop a cutting edge solution to an organizational performance dilemma, but if the learner does not possess the skill to access the information or if your organizational culture is not ready to embrace the innovation, your effort may be unsuccessful.

This article was intended to illuminate some of the potential bumps in the road. The best-laid plans of competent designers can easily be derailed by an unplanned factor. When deciding which delivery method is best for your course, look past the glamour of what's new and weigh the pros and cons of the media you select.

*David Bill is the president of the Liquid Knowledge Group, Ltd. a knowledge development and strategy consulting firm in Media, PA. He can be reached at 610.565.4900 or by email at david.bill@liquidknow.com.*