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Instructional Multimedia – When, When Not, and What’s Next **By Connie Swartz**

I remember when “multimedia” meant turning out the classroom lights to watch a filmstrip or slide show. These “audiovisuals” were usually overused and of poor quality, but at least they were a change — and, what fun, the equipment always broke down! Nowadays, “multimedia” usually refers to some grandiose electronic presentation replete with color, text, video, audio, and special effects.

My company specializes in *instructional* multimedia, instruction that is delivered via CD-ROM (computer-based training, or CBT) or through a browser (Web-based training, or WBT). Developing instructional multimedia requires creativity and very specific skills and knowledge.

One indispensable piece of knowledge is when to use instructional multimedia instead of traditional classroom, self-study, or on-the-job instruction.

When to Use Instructional Multimedia

Many situations are ideal for instructional multimedia.

Software training – Software training allows learners to practice specific focused skills using simulated data. Learners usually complete a skills check before they use the software with real data back on the job. This method is a nearly foolproof way of ensuring the transfer of training to the job.

Widely scattered locations – If people in various locations need training, the development cost of CBT/WBT can be justified by eliminating costs of travel and classroom presentation.

Many people – A large audience can also justify development costs. If everyone in an organization needs to be trained, CBT/WBT development may be an efficient alternative to the costs of classroom space, scheduling, and materials.

Varying knowledge and skills – Sometimes, classroom training requires a standard knowledge and skill level for incoming learners. CBT/WBT lets all learners achieve the same knowledge and skill level before class begins. It can also be used in pre-training to screen learners for prerequisite knowledge and skills.

Static content – Training content that doesn’t change over time is a natural for CBT/WBT. Maintenance and distribution issues are reduced or eliminated.

Hazardous content – It's much safer to simulate hazardous procedures and materials than to expose learners to danger. CBT/WBT is a safe environment in which learners can practice before attempting the real thing. Experiences that take place over extensive time and/or distance can also be simulated in CBT/WBT.

When Not to Use Instructional Multimedia

I started hearing predictions in the 1980s that within five years all workplace instruction would be delivered electronically, which sounded great to me. For several years now, though, I've realized that there will always be a need for classroom, self-paced, and on-the-job instruction. Here are some situations where instructional multimedia may not be the best choice.

Small audience – The best way to figure out whether your audience is too small for instructional multimedia is to calculate the break-even point. If it takes five or more years to recover the development costs, other options are probably better.

Motor skills – Motor skills are best learned through practice. The concepts of a physical procedure can be taught online, but demonstration, practice, and mastery happen only with hands-on experience.

Dynamic content – Paper-based training that is a pain to keep up to date will be an even more expensive pain in an electronic format.

Non-technical learners – People without technical experience or interest may not benefit from CBT/WBT. They can be resistant and resentful, which affects training and the resulting performance.

Unsupportive environment – The environment must be appropriate for computer use. If learners have insufficient access to computers or inadequate time for taking instructional multimedia courses, the training will not be effective. Six employees trying to take a CBT/WBT course standing at the information counter in a shopping center on one computer that their manager needs access to won't work.

Human interaction – Some training requires face-to-face experience. Although CBT/WBT pre-training can be a good starting point, skills practice with role-play, group discussion, presentation, and other human interactions are best experienced in person.

What's Next with Instructional Multimedia

The use of CBT/WBT will continue to grow. Internet/intranet browsers are commonly available in every organization. WBT distribution is a piece of cake in comparison to paper-based distribution and classroom delivery.

Mary Howe, local instructional multimedia developer, believes that, "We'll see more and more WBT. The use of CBT will diminish." Mary also sees increased momentum toward the use of Macromedia Flash, which allows space-hogging video to be replaced with space-efficient Flash animation.

In the early days of the Internet, the expectation was for e-commerce to drive the need and justification for everyone to have Web access. That prediction hasn't been realized. Even Borders Books has given up and is now teamed with Amazon. Mary believes that there is indeed a need and justification for everyone to have Web access. But the emphasis is on "the Web as an information and instructional resource for everyone, rather than a place to buy things."

In the past five years, we've seen an abundance of generic instruction converted to the Web without taking the technology or instructional strategy into consideration. We are now seeing an increase in customized instructional multimedia that is instructionally sound and appropriate to the delivery method.

Summary

Predictably, I'm a fan of instructional multimedia. My company has experienced a steady increase in CBT/WBT projects over the past five years. Instructional multimedia is fun and can get great results (if it's used appropriately), which benefits the organizations that use it.

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