Part Three

Alternative Delivery Systems for Distance Learning

Television teaching is the most popular distance learning medium today. Instructors experienced in the traditional classroom face significant challenges when entering this new teaching environment.

Teaching by Television

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Live video instruction is the fastest-growing distance learning delivery mode in the United States today (Ostendorf, 1996). More classes of students are being taught through this technology than by any other electronic medium. Although computer networks receive lots of attention in the media, in reality very few students receive formal class instruction, either credit or noncredit, via personal computer with modem. Even highly touted desktop conferencing is being adopted by many organizations largely because it allows an instructor to teach groups of students via live video and in real time. Although the information highway is used by many individuals for research and entertainment, that infobahn is still more a library than a classroom. The live delivery of instruction to groups, not to individuals, remains the norm whether learners gather face to face or are linked by electronic means.

Those instructors who wish to secure a place in the classroom of the future must first understand these technologies and the environment they are about to enter. They must step from the traditional classroom into the video world, accepting and adapting to its unique requirements.

What does it take to teach successfully by television? First, it is critically important to understand how distance learning differs from both commercial television and the traditional classroom. Preconceived notions about television and established practices in traditional teaching can be a great impediment when making the transition to television. It is far different from teaching in the traditional classroom. Unless we understand what we are trying to achieve by using these new systems, it is highly unlikely that we will be able to accomplish it.

Next, the instructor must be introduced in a general way to the basic technology to be employed, and to the specific role the instructor plays in the delivery of instruction. Not all distance learning video systems use the same

technology or the same equipment; similarly, the role of the instructor also varies greatly by system.

Third, course design must take into consideration the system capabilities, the demographics of participating learners, and the electronic tools available to execute the design. But above all, it must demonstrate a bias for direct learner involvement and participation throughout the lesson. While lesson design is not the focus here, it should be assumed that whoever develops the course for delivery is experienced and knowledgeable in the demands of the medium.

Next comes training and practice to achieve mastery of each individual teaching tool. Only when each piece of equipment can be operated effortlessly will the instructor be free to focus on the subject matter at hand and on individual student needs in particular.

Finally, the instructor must master unique facilitation skills to assure that all remote learners can participate in interaction and other involvement activities equitably and with ease.

When all these elements have been addressed, the experienced classroom instructor can begin teaching by television.

Not Commercial Television

Too many instructors think teaching by television means presenting a performance or emulating a game show host. In fact, the opposite is true. A closer look at the basic premises of commercial television reveals that they directly contradict what is essential for excellence in distance teaching.

Commercial television focuses—literally and figuratively—on what takes place in the studio, to the complete exclusion of what occurs on the other side of the glass. Television producers put much time and effort into selecting what they call "the talent"; they attempt to engage only the most beautiful, vivacious, energetic, and engaging people to put on camera. They create elaborate sets, fuss with lighting and microphones, and choreograph in detail the length of segments and the sequence of events.

But what of the recipient of all this activity? The television viewer is literally that—one who views the actions and activities of others. No criteria whatsoever exist for those who will be the recipients of television programming. Even when token interaction is incorporated into television, viewer opinions are screened, presented in as short a time as possible, and then ignored. In the world of television, the ideal viewer has a pulse and a heartbeat, and little else. Commercial television is a one-sided playing field with all elements of production favoring the studio and those within it.

On the other hand, distance learning can succeed only when the remote learner is at the center of everything. Instructors are chosen for their subject mastery and delivery skills for the benefit of the learner. Visual materials are developed for maximum legibility and clarity for the benefit of the learner. Course design is based on activity and interaction for the benefit of the learner. Learner-centered design and delivery has never been more important than it is in every

aspect of distance learning. Unlike commercial television, successful distance learning requires that the instructor do less and the learner do more.

Teaching networks must adopt what is best from the world of television—for example, production techniques that make television engaging and motivating—while rejecting entirely the instructor-centered studio bias upon which it is based, a practice that completely neglects the learner.

Not the Traditional Classroom

Is distance learning simply a glorified and extended traditional classroom? Definitely not. A traditional delivery that is repeated verbatim in front of a camera is doomed to fail. Distance learning requires three things not always found in traditional classroom teaching: learner-centered design, learner-centered delivery skills, and direct learner participation.

Today's classes, whether on university campuses, in public school classrooms, or in corporate training centers, are far more instructor centered than distance learning demands. Instructor-centered design results from the common practice of planning only what the instructor will do. We painstakingly identify instructional objectives, then develop a content outline from which we create presentations that are invariably delivered exclusively by the instructor. Little or no attention is paid to what we expect the learners to be doing.

We do not achieve similar learner involvement in our classes, because we typically set no objectives in that regard. Every lesson plan for a distance learning class should include specific and measurable involvement objectives to assure optimum levels of learner participation. We must design everything learners will do to the same extent that we now plan the duties of the instructor.

Once an ideal model for distance learning has been envisioned, it is time to take a look at the specific technologies and tools that make it possible. Why is this important? Because an instructor will be able to maximize the involvement of each learner only after understanding and mastering the system. Instructors who are uninformed and unskillful in execution cannot perform well for the benefit of the learners.

A Choice of Technologies

Two differing technologies deliver live video, with very different results. They are referred to in common usage by the types of images they can deliver: one-way video and two-way video.

One-way video is the name given the technology used to bring commercial television entertainment to the home; in teaching networks, one-way video is usually delivered by satellite or microwave systems. The instructor's video image originates from one location and is broadcast to all other sites, going only one way. The instructor in the studio can be seen by all others but cannot see the learners. Oral interaction takes place by telephone, using a telephone link that is established separately. Students are faceless to the instructor, but

they do have voices. Adapting to this "faceless" environment is the most difficult adjustment for traditional classroom instructors, who are accustomed to seeing their students, reading body language, and so on.

Two-way video systems allow all sites and all participants to see and be seen, to hear and be heard, all through one system. Since the instructor can see the students and students can see the instructor, the system is dubbed "two-way video." As most two-way video systems have only one or two display screens at each location, incoming images must be viewed in sequence, not all at the same time. In other words, even though the instructor can hear all the students all of the time, students are seen by turns. Most systems rely on voice activation; that is, the person who is speaking becomes the image seen by all others.

One other distinction should be noted. Although it is technically possible to link up many locations with two-way video technology, in common practice such systems are used for smaller numbers of participating locations. One-way video classes delivered by satellite routinely link tens or hundreds of sites and hundreds or thousands of students, but two-way video classes typically connect fewer than ten locations. Thus, the total number of students in two-way video classes more closely replicates the average attendance in a traditional classroom. This fact should not be construed as either a limitation or a benefit, as learning can occur with either type of system as long as the design and delivery are appropriate for the medium.

Any instructor who is scheduled to teach in a video classroom should first ascertain which type of system will be used and how many sites and learners will be directly involved.

A Choice of Environments

The new video instructor may encounter two greatly different teaching environments: a video studio or an instructional classroom. These environments differ not only in how they are equipped and staffed but in what is expected of the instructors who teach in them.

The studio. Organizations with a long history of television production often originate their programs from a regular television studio. Instructors are expected to teach from a lighted video set surrounded by one to four cameras and supported by a number of crew members. Clearly, this environment represents the greatest change and challenge to the traditional instructor.

The instructional classroom. High overhead and staffing costs associated with full studio production have forced many teaching networks to seek a less costly solution. In the 1980s, experiments by user organizations and technology improvements by vendors resulted in the development of the instructional classroom, which has now been widely adopted. Unlike a studio, the instructional classroom has many automated functions and often includes robotic cameras and touch-screen controls. The instructor, perhaps assisted by one aide, operates all video tools and selects and transmits the appropriate image at the appropriate time. Other elements of video production—such as customized lighting and sets and extensive crew support—have vanished. In-

structors in these settings teach from what is basically an enhanced classroom rather than from a television studio.

The Instructor's Role

The most crucial difference in the instructor's role when teaching from a video studio is the loss of autonomy. In the traditional classroom, the instructor delivers all the presentations, displays all the visuals, runs all the equipment, and is basically in charge. In the studio environment, the instructor is but one member of a larger team.

In the video studio a number of crew members are engaged to handle many of the chores traditionally done by the instructor. Instead of working alone, the instructor must coordinate every action with a number of other people. A written outline of what will occur (the rundown sheet) must be developed, followed by extensive rehearsal with the crew to assure a smooth delivery of every aspect of the class. Instead of making all decisions in a vacuum, the instructor must now defer to a director, who has ultimate responsibility for the course delivery. This transition from solo performer to team player can be a difficult one for the traditionally trained instructor.

In the instructional classroom, the dilemma facing the instructor is that of too little support, not too much. Instead of being surrounded by familiar chalkboards, flip charts, or overhead projectors, the instructor encounters an array of classroom oddities, which can include a touch-screen control panel, an annotation pen, a computer mouse or keyboard, a document camera, and the like. No team of crew members awaits to fulfill the instructor's every command. Instead, all video tools are to be operated by one person—the instructor. Teaching while operating these devices can seem as unnatural as rubbing one's stomach and patting one's head simultaneously.

Mastering the Equipment

The only way to become comfortable with all of this technology is to practice until every tool is an old friend and its operation becomes second nature. Extensive practice should be mandatory for all primary instructors, not just for those in the instructional classroom. Those who will teach from a studio may need to use a TelePrompTer or earpiece microphone for the first time; certainly eye contact with the cameras will need to be practiced.

How much practice is recommended? If you have to stop and think about where to look or which button to push, you haven't practiced long enough. One successful Michigan network requires eight hours of practice for every hour of instruction, before new instructors are allowed to teach at a distance.

Preparing the Instructor's Area

One way to assure the highest degree of comfort in either teaching environment is to make it your own. Instructors are not robots; they teach in different ways, using a variety of teaching styles. Whether you teach from a video studio or an

instructional classroom, take the time to look over the teaching area and to make some adjustments that better suit you and your teaching style.

Decide whether you will stand or sit, and arrange the chairs and other furnishings accordingly. Move the document camera to a slight angle; doing so usually results in a more comfortable and natural handwriting position. If you tend to wander around when you teach, use masking tape to mark the outer limits of movement; the tape will indicate how far you can move and still be in the camera shot when standing in your primary teaching position. If you must operate the cameras yourself, create one or two optimum shots of yourself based on your height and store them as pre-sets that can be recalled quickly without a lot of panning and zooming.

Besides adjusting the equipment, consider the nonelectronic essentials. Mentally walk through your upcoming lesson and check to be sure you have all other materials—papers, textbooks, pens, objects to display or demonstrate, and the like—close at hand and ready for the lesson you have designed.

Too many instructors walk into the studio or instructional classroom at the last minute and just begin teaching. No teaching area has yet been designed to accommodate every single instructor without some slight personal modifications. Good preparation is reflected in a well-delivered class; you owe it to the learners to teach from a comfortable and efficient environment.

Understanding the Learner's Environment

Make a special effort to understand the learning environment of your students as well. Which time zones and cities will be included? Will learners congregate in small or large groups? Will there be a large number of locations for your course or just a few? Will they all be similarly equipped? Does any part of your lesson indicate the need for additional on-site support, such as a site facilitator?

Such learner demographics are important during the course design phase, but they are also critically important for the actual delivery. If you are to direct activities and interaction skillfully, you first need to know how many students you have and where they all are. Whenever possible, prepare a written list of students who are expected to attend, grouped by their location. Take it to class and use it to track oral participation by site or by individual. If preregistration is not possible, or if it results in an inaccurate or incomplete attendance tally, have students prepare site lists and fax them as an opening activity.

Skillful Facilitation

After technical arrangements have been made, the lesson has been designed, and students are in attendance, the success of the subsequent lesson depends upon the facilitation skill of the instructor. Every teacher must establish an open, inviting, and nonthreatening learning environment. If, on the other hand, student comments are treated as an interruption or a nuisance, a high

degree of interactivity and involvement will not be achieved, regardless of the lesson plan.

Don't wait for students to ask you questions, but use directed questions to include and involve all sites and all learners. Just as you wouldn't rely solely on student-initiated questions in the traditional classroom, neither should you in distance learning. Call on sites and individuals to assure that students are paying attention and understanding the lesson.

If you expect students to talk to you, you must support their efforts. Questions that can have a wrong or right answer are better asked of a site than of an individual. Everyone at that location can contribute to the answer, which is determined by consensus. When students volunteer a comment or a question, thank them for their contributions and build on their ideas as a form of acknowledgment. If they ask you a question, follow up personally to be sure that they understood the answer before moving on to another student or topic.

Often how we say something is just as important as what we say. Facilitation skills can be greatly improved by carefully selecting the terms and phrases used to invite students to participate. Saying, "Are there any questions?" is one of the worst ways to stimulate discussion. That particular phrase does not specify a particular person or location, and the learners cannot tell from the monitor to whom you are directing the question, so they have no idea who is supposed to speak. The request for questions only deters those who might want to contribute something other than a question, such as a comment, a different opinion, an idea, or an example. It is far better to kick off discussion by calling on a particular person or a particular site and asking for ideas, comments, or questions. You will get what you ask for, so think a bit before you speak, and choose your words carefully.

Finally, skillful facilitation means that students always understand what is expected of them. Instructions for learning activities should be concise and to the point and should be accompanied by written instructions on the television screen and in handouts, if possible.

Skillful facilitation is the culmination of your efforts. Improve your facilitation skills by videotaping classes and critiquing your own delivery.

Final Thoughts

Experienced instructors who are successful in front of a video camera will be at the forefront of education, as the trend to the delivery of live video classes to geographically distant learners is not likely to abate. Success in this medium results from understanding the medium and the instructor's environment and then mastering the equipment and acquiring facilitation skills that allow the instructor to motivate and directly involve all learners. Distance learning offers new challenges to established instructors that can result in untold benefits to remote learners and a greater degree of personal satisfaction with teaching.

Reference

Ostendorf, V. A. *Distance Learning Directory*. (5th ed.) Littleton, Colo.: Virginia A. Ostendorf, 1996.

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