What does "Distance Education" Look Like?

from "Distance Education: The Options Follow Mission by Susan M. Rogers

When “distance learning” meant the correspondence course — or even the televised lecture — many people looked down on it as a poor cousin to an on-campus college education. Today, of course, the media for distance learning have become vastly more varied and interactive, spurring a new round of institutional and student interest. What had been a marginal activity has become an important means of access to educational opportunities and resources.

Choosing Distance Education

The demand for educational access solutions such as distance learning is being driven by well-known changes affecting the landscape of higher education. First, the student is changing. Older students, who have begun to out-number traditional-age students, often need to renew their educational skills several times during their careers. These older learners are busy, working adults, who are not well served by traditional educational structures. Second, we are beginning to see education in terms of learning, not just teaching — where learning is defined as students’ guided efforts to construct knowledge for themselves. The dramatic rate of change in information alone is forcing us to realize that we don’t need an “educated” population, but rather learners who combine work and education in an active and ongoing process. Even within school settings, situating learning within functional contexts helps students to transfer their learning to real-world tasks. Important also is providing the learning when students need it; skills and knowledge immediately applied are more likely to be retained.

Finally, new communications technologies now offer exciting opportunities and tools for teaching and learning. Telecommunications networks have the potential to interconnect students, teachers, and information resources in a conversation of learning that is free from many of the constraints of time, place, and physical disability inherent in traditional classroom instruction.
To meet these changing needs with distance education, institutions must make many choices: instructional, technical, economic, and organizational. The instructional objectives of the subject must drive such choices. Instruction in a rapidly changing technical field, for example, cannot afford an extended development time. In fields where talented instructors are scarce, the best method for extending that talent is worth considering. In others, extensive and rich visual environments are necessary.

Technical feasibility will be determined both by the existing resources of the institution, the teachers, and the learners and by their abilities to use instructional technologies. For example, access to a statewide infrastructure for telecommunications may make two-way video alternatives more feasible than might otherwise be the case. Technologies that require extensive user training, on the other hand, may be more trouble than they are worth.

As with all choices, economic issues are also important. Cost/benefit analysis must take into account reduced travel time/expenses, as well as the number of times a course will be repeated. Finally, consider the organizational culture. If the learners are reluctant to use a computer, for example, then including computers in the delivery system will involve a great deal of preparation. In addition, look at the reward systems and politics of the institution in the selection of alternatives to ensure faculty endorsement and effective participation.

**Making Technology Choices**

Distance learning has the potential of meeting new education demands because it can provide instructionally effective, highly interactive learning experiences that are flexible, equitable, and responsive to individual needs. When it responds to the changes mentioned above and makes use of appropriate technologies, distance learning can provide a rich learning environment that affords:

- multiple representations of information
- individually responsive time frames for learning activities
- learning that is situated within a real-world context
- participation of all learners without limitations of time
- opportunities for inclusion of learners with special needs
- a community of learners based on intellectual interests rather than physical proximity.

Achieving this environment requires a significant investment in telecommunications technology, but first, an institution should establish its goals for distance education. More interactive, learner-centered approaches would require different technologies.

A wide range of technologies can help different learners achieve almost the same instructional ends. Therefore, institutions should not lock themselves into a single delivery method to meet all instructional needs.

By involving faculty in decisions regarding the selection of instructional tools, and using technologies more familiar to faculty and students, the development of new distance learning environments can be driven by the needs of the learner and learning situation, not the technology. At the same time, this learner-oriented approach may also encourage the thoughtful use of face-to-face settings in support of distance learning programs.

**Interaction Technologies**

Providing appropriately responsive communication and interaction between the distant student and instructor is a continuing challenge. However, it is the strength of ongoing interaction with faculty and other students that distinguishes college/university instruction from purchased self-instructional programs or mass education programs. Mail, individual telephone calls, and class meetings are the oldest forms of interaction for distance courses.

It is important to determine whether class meetings are necessary to meet course objectives or if they are simply more comfortable and easier for faculty and some students — since they may not be practical for distant students. Class meetings are especially useful for courses in which students need to gain access to special resources or participate in a real-time interactive experience. For distance-education courses that require meetings, nearly three-quarters of students think them helpful and enjoy the opportunity to meet other students.

**Additional Modes of Interaction: Synchronous or Asynchronous?**

Many institutions create additional opportunities for interaction through audioconferencing and computer-based communications. With these additions, distance courses become increasingly interactive and create learning environments that often surpass classroom settings for permitting student participation and interaction.
In addition to the technology used for interaction, faculty must consider the appropriate balance between synchronous (real-time) and asynchronous (time-shifted) modes of interaction. Some students prefer the spontaneity of discussion in real-time audioconferences, which enable students to get to know others in the class or to immediately resolve their confusion over a subject. Others like to analyze complex issues through asynchronous computer conferencing, where they can take time to consider their response and carefully choose their words. Distance education students don’t want to be locked into the rigid schedule required by real-time communications during a course. Using both technological modes helps balance their strengths and weaknesses.

Simple audioconferences are useful for collaborative problem solving, reinforcement of learning objectives, and question-and-answer. Students dial into audiobridge from anywhere in the world at a specified time and are linked with their professor and the other students in the class. The open environment on an audioconference also allows for easy inclusion of subject-matter experts from outside the university to join the discussion. Audioconferences must be used carefully, however, because they require students to be available at a specific time, and they are not easily accessible to students who are hearing impaired.

The lack of graphic support also makes audioconferences less than ideal, but rapid changes in telecommunications systems promise increased capabilities. Even now, technology such as telewriters and picturephones, for example, use simple telephone lines to transmit graphical images. Such audiographics can be as simple as a fax machine or as complex as a compressed video system. As with other course design decisions, the choice of audiographics technology depends on the situation. For a math class, where it is often important to see how an equation is solved, for example, visuals are especially valuable. There, highly detailed images are preproduced and loaded onto the computer for use in conferencing using telewriters. This arrangement also places demands on students, who must have access to similar equipment and must attend sessions at a preset time. Some faculty have been able to encourage meaningful collaboration with the industry or school-based telewriter sites, which makes the travel worthwhile for learners.

While the advances in real-time interactivity are worth investigating, asynchronous computer-mediated communications systems permit time and place-independence. Using personal computers and modems, learners can — at a time of their choosing — create and submit homework, receive feedback, take a self-test, interact with their instructor and others, and access software, library resources, and advisory information.

The use of asynchronous computer conferencing for course discussions has had especially rewarding results. No one is excluded from participation due to time limitations of the class, communications barriers, or distance. Students for whom English is not a first language and hearing-impaired students have found these conferences especially useful.

Impact on Faculty

Faculty need to receive assistance and guidance in instructional technologies to give them more control over their distance teaching methods. At the same time, rather than view themselves as information providers, they are oriented to see themselves as facilitators and mentors for learning. They are encouraged to explore the demands of their own discipline that might be addressed through new strategies, and they have input in technology selection.

Many teachers who have taught from a distance have commented on the impact it has on their traditional instruction. Some have even admitted to being self-conscious about the “teacher-centeredness” of classroom teaching. Increasingly, we are finding that many faculty are using technologies and approaches in their campus instruction that they first employed in distance instruction.

Distance education is beginning to affect faculty recruitment, as well. Some department chairs at certain institutions with significant distance learning programs report that distance education is considered a part of the job now. One has said that a candidate who wasn’t open to distance teaching would simply not be considered.

Distance instruction is just as much work as on-campus instruction — it is just that some of the tasks are different. Rather than spend a certain number of hours lecturing, faculty interact with students via telecommunications. Interestingly, one of the often unstated rewards of distance instruction is the freedom it gives faculty members to arrange their own work time, just as it does for students. This is not unnoticed by faculty.
Distance Education Possibilities

• In a university’s engineering technology program, students view prerecorded videotape lectures in their homes and perform lab work at the local community college. Assignments are faxed back and forth between the students and the instructor. For recitation sessions, the students convene as a class at the community college and communicate with the instructor, who is located at the university’s main campus, via electronic blackboards (telewriters).

• In a distance learning chemistry course, students complete almost all of their work off campus. In addition to reading textbook assignments, in their homes they watch videotapes that describe chemical processes and explain laboratory assignments. They also use a laboratory kit provided by the university of conduct several experiments at home. They come to campus during the course for a laboratory assignment that requires special equipment (several weekend and evening options are available) and again for the final exam.

• The students taking a biology course receive all of their reading assignments via the World Wide Web; using the Web they also can view compressed video demonstrations of laboratory procedures. Using virtual reality equipment and software provided by the university, they conduct several laboratory assignments, including the virtual dissection of a frog. The software records each student’s performance on the assignments and e-mails a report to the instructor.

• Students earning a degree take all required courses via distance learning. The courses are delivered in a variety of ways, including telecourses; interactive television courses, delivered via one-way video, two-way audio connections, which students can take from one of several remote sites; and online courses, in which all course materials are delivered and all instructor/student interaction occurs over a computer network.

Patricia M. Volp, Southeast Missouri State University Center for Teaching and Learning

Studies show that out-of-class interaction between faculty and first-year students are significant to the students, in terms of intellectual development, personal development and academic performance.

How do we get students to come talk to us besides reminding them of our office hours? It turns out that our lesson plans themselves affect whether students will take the initiative to seek us out. The majority of faculty sought out by students are those who:

• Solicit the views of students in class
• Discuss a variety of points of view
• Allow students to express their ideas through essay exams and term paper assignments.

“ESCAPE VELOCITY” OF CYBERCULTURE

The New York Times says that Mark Dery’s new book “Escape Velocity:

“Cyberculture at the End of the Century” is written with considerable knowledge and authority about such bizarre subcultures as the avant-garde roboticists, cyberpunk novelists, virtual reality designers, body art performance artists, “cyber hippies” and “technopagans.” Although the book uses the critical theories of Bataille, Foucault, Baudrillard and McLuhan, the newspaper describes the author’s writing style as “happily, sometimes even exuberantly nonpedantic.” Dery has appeared several times in the pages of Educom Review. (New York Times 20 Feb 96 B2)
Before We Empty the Classrooms

Stephen C. Ehrmann, Manager, Educational Strategies Program for the Annenberg/CPB Projects, summarizes recent listserv dialogue on when students need to be physically present in a classroom in order to get what they need from a course.

1. The most obvious strength of campuses lies in certain facilities that they build and control (e.g., wet labs, research libraries full of monographs and old journals, museums, dance studios.) These facilities potentially play an important and unique role in higher learning.

2. Some campuses play a socializing role because faculty and students live near one another and share many of the same "facilities" (e.g., they and their families accidentally meet when they go to the same pond to watch the ducks, and out of such encounters can understand one another and commit to one another on new levels).

3. The classroom is a better venue for small group discussions. You can communicate in many "channels" simultaneously, clarifying and developing thoughts quite rapidly.

Face-to-face work in pairs and small groups is likely to continue to be important when feasible for the participants. (Some people assert that more bonding occurs in such small, intensely collaborative, face-to-face groups than in, say, e-mail collaboration that’s equally intense.

4. Deep learning: learning that develops fuller understanding of ideas as evidenced by the student’s ability to go beyond what was taught and to apply what’s been learned in unfamiliar, real world situations.

Deep learning seems to require considerable study of students by faculty. To foster such deep learning may often require a process of students working (alone or in small groups) on problems or projects, while the faculty member wanders from student to student, watching and listening to their work. This kind of process can be done when students are off-campus, but, some think, less efficiently. This issue of deep learning is a key point because, in science at least, students rarely seem to learn at this level. If this process of mutual assessment can’t take place, with the student surfacing and testing preconceptions, the results can be subtle misunderstanding and quick amnesia. As a result, the student can’t make applications to real life problems.

Worse, this lack of learning is hidden from both the faculty member and the student — both believe quite sincerely that the student has mastered the material (see the video "A Private Universe" for a vivid example; there’s information on this video at http://www.learner.org/ed_strat/ed_courses).

5. Certain types of performance almost necessarily need to happen face-to-face to be accomplished economically, e.g., oral presentations in a speech course, dance recitals, etc. Using two-way video is often more expensive.

Writing in Math

Ted Panitz, Cape Cod Community College

I teach developmental math and ask my students to answer these questions at the beginning of the term: “What do I need this for, why am I in algebra and what practical use does it have?” I have my students write a math autobiography before the first class to start the process of having them recognize their fears. I send them a letter of introduction before school starts and request this first writing assignment. It has an interesting effect and alerts them to the fact that we will be doing some different things in this math class. I also place a comment section at the end of each exam and encourage them to write anything they wish. I get back the most amazing self analyses by the students and some very helpful observations. Also two or three times a semester, I ask them to write a personal assessment and their reactions to how the class is going. They are very candid in their responses. This process gives me a chance to communicate with students who may be shy about saying something to me about a problem they are having. They eventually get over the shock of writing in a math class and begin to enjoy it.
Confronting Unread Reading

from The National Teaching and Learning Forum

What do you do when students don’t do the reading for your class? Their excuses often provide amusement, but how do you, as the presumably wiser and more clever head, provide motivation? Joseph Hallman, who teaches in the theology department at the University of St. Thomas in St. Paul, Minnesota, shares this approach to this problem.

"Here is what I started doing just last year, and it works exceptionally well. I give a simple assignment for each class day, an easy question on the reading. I grade them either satisfactory or unsatisfactory with a single criterion: Have you shown that you read the material? Even if a student gives a “wrong” answer to the question, it is satisfactory. At the beginning of the class I have students trade them with a partner, and the discuss each other’s responses to my questions. In one recent instance, a student saw immediately how she had misinterpreted the question when she saw her partner’s response. The purpose of this assignment is not to see whether students can find the right answer. It helps them read because they are looking for something. It guarantees that they read before the class. I begin each class surveying their responses. Most are eager to answer verbally.

One of the best results is that students can miss some without paying a huge penalty. At the end of the semester I use the total number of Ss that each student has and relate it to a letter grade which becomes part of his/her final grade. I do not take any of these assignments late because it defeats the purpose, which is class preparation. I tell my students that I know that they have many good excuses for missing class, but that the Ss reflect preparation and presence in the class, nothing else. I have had no problem with unread students. Those that do not read or prepare simply accept the fact that they did not meet this particular requirement very well, and try to do other things in the class to make sure they can pass, such as study hard for major exams, work on major papers, etc. And the best part is that in my classes I do not have to repeat what is in the book, something I fell into through the years and became very bitter about. I can get them to talk immediately and establish a good atmosphere nearly every day. It is a lot of reading, but worth every hour, I think.”

Janina Jolley of the psychology department at the Clarion University of Pennsylvania offers this approach:

"The best method I have found for motivating students to study the assigned reading before class is by having them use a note-taking form. Specifically, the form has columns for main points, application of main points and critical comments about the content of the readings. Students are required to bring these “notes” to each class. They are collected at unannounced times and account for 15% of the course grade. In addition to motivating students to read and study the assigned reading the notes serve as a basis for class discussions.”

A Good Idea

Keith R. Prior - Academic Coordinator

At UC Davis there are two forms of student assessment of courses—mid-quarter interviews with the students, absent the lecturer, and required end-of-quarter student assessment of the course.

Every time I teach my courses I start with a report on previous evaluations, including graphs and charts and anecdotal comments (positive and negative) and then I indicate how the course has been changed as a consequence. I also cover reasons why changes suggested by students have not been implemented and ask students to suggest ways to help me solve the problem brought up in previous courses.

All of this takes about 30 minutes of classroom time and pays enormous dividends for student involvement.
Student Journals

A faculty member in Women’s Studies at one institution asked her students to write reflective journals. At the beginning of the semester, she gave them examples of a “excellent” entry, an “acceptable” entry, and an “unacceptable” entry. Her rationale for doing this was that if you’re going to use journals as part of the course grade, then students need to know what is expected.

She expected that students would grapple with issues—not just mention issues or tell diary-like experiences. She allowed narratives, of course, but in the narratives she would want to find some analysis or response.

What’s good probably depends a whole lot on the field. A good entry in a reflective journal for a geology course might include a narrative discussion of how the student decided that a mineral specimen was orthoclase rather than plagioclase, and then when he/she discovered a problem with the identification, it might be important to analyze the mistake.

How to evaluate journals? This is a tricky subject. Some instructors feel that writing style, mechanics, spelling, etc. should never come into consideration. They feel categories of evaluation should reflect how the journal keeper is questioning, analyzing, and responding.

Promises to Keep

At the beginning of his course, Bradley Butterfield, a GTF in Comparative Literature, makes an interesting promise to his students and asks them to do the same thing. What follows is part of his syllabus and a sample of the kind of student response he receives:

Course Description: I consider this class part of an ongoing experiment as a teacher, and I expect you to do the same as students. I would like you to begin the term with a short statement about who you are and what being a student means to you, followed by the grade you are prepared to earn for the course. Here, for example, is my statement to you as a teacher:

I believe there is no such thing as a perfect class, that a good class is by nature imperfect, for the simple reason that humans are not machines. A good class, I think, is one that changes its participants, and so I try to do something different with the way I design each course, something to learn. Some of what we do here — the readings and the assignments — will therefore be new for me as well as for you. In other words, beware: I am not in control. This is an organic class and I hope it will grow all over you. I have no idea what will happen. I have no specific agenda, just a handful of playwrights I felt like reading and some ideas about how to facilitate a course which will facilitate growth for as many of us as possible. My goal as a teacher will be: to present you with as much knowledge about drama as I have at this point, to provide you with whatever inspiration and enthusiasm I can muster, but mostly to provide an atmosphere and a curriculum where people can learn, change, and grow. I hope to earn an A. Your first assignment, then is to write a statement like this about yourself as a student, including the grade you are committed to earning.

A Sample Student Response

I will spare the generic introduction of giving my name because it is typed above. I was born in Portland, OR and have lived there all my life. I have a brother, Michael, who I care very much for and for whom I don’t always know how to express this. I am the son of parents who after 20 years are still relatively happily married. I found High School boring and was anxious to enter the studious atmosphere of college. I am here and find that I have no direction and am less studious. I did manage to maintain 3.5 GPA last term and hope to improve upon this during the winter. This is a brief history of mine — brief because my history has only begun.

I took COLT 101 as a multicultural requirement. I enjoyed literature in high school and I figured it would be an interesting course to take while having the perk of helping me graduate. I earned an A, but I don’t think that is why I took COLT 202. I enjoyed that I read — Kafka, Nietzsche, Foucault, and Orwell — and concluded that your class would be the next step in the stimulation I received. I believe that I will earn an A in your class as well, so long as I maintain the same work ethic.
as I had in COLT 101. Thus, the only expectation I have of
the class is that it enlightens me a little. I think that what is
more important is what you should expect from me. I will
be quiet but my brain is always working. I would much
rather discuss the readings with self-conscious, rather I am
not willing to be caught up in the heated passion of argu-
mentation that is often correct on both ends of the debate. I
will attempt to please you with my writing. I think this is a
fairly informal paper so it has been given far less attention,
for example, than my term paper for COLT 101 was given.
These are things that you should look for in my term with
you. Obviously you will grade me on what you want but I
have simply attempted to give you examples of what I am
all about as student.
Joseph K. Perko

I try to describe the problem, refer to a few places it occurred
in the paper, and suggest a way or two that it could be fixed.
The student will then need to fix the problem in particular,
and throughout the paper. I like the revision effort to come
from the student more than the teacher. When the teacher
finds all the problems and tells how to fix all of them, the
revision is the teacher’s, instead of the student’s. Red ink
does not have to be negative. I always try to specify
strengths before I discuss problems, and I try to sprinkle
various “Good X”s throughout the margins. On all major
assignments I ask students to also turn in a written assess-
ment of their assignments’ strengths and weaknesses. Most
of them are aware of both. (Yes, they always worry that it is
not fair to have to label their own weaknesses, and yes, I
always reply that in a quarter century of doing this, no one
has ever pointed out a flaw I had missed.)

Author Unknown

POD listserv

Another approach to correction of mechanical errors is to
indicate the word, line, or paragraph in which an error
occurs, but not say what the specific error is. This leads the
student to locate and correct the error, without it being done
for them. In grading papers, you can “fade” the amount of
guidance by indicating the exact position of the error early in
the semester, later in the semester indicating only the
paragraph in which it occurs.

In my Educational Psychology class, I deduct a certain
number of points for mechanical errors (e.g., 1 point for 1-5
errors in a five-page paper, 2 points for 6-10 errors). Stu-
dents can “buy back” the points by locating and correcting
the errors and resubmitting.

Initially, students often say, “This must be a matter of
judgment. I always got an A in English.” However, whether
by their own work or consulting with others, they always are
able to identify and correct the errors. By the end of the
semester, most patterns of errors disappear.

Dorothy Frayer