Technology is often the driving force in the distance education movement, rather than the needs or educational problems that exist and need to be addressed. This paper considers the questions that should be asked before deciding that distance education is an appropriate solution to an education or training problem. The most successful distance education programs in the world are those that respond to real needs and offer an alternative to learning which would otherwise be denied or prohibitive in terms of cost and time. The popularity of distance education and the attempt to immediately utilize new technologies often bypasses an initial analysis and needs assessment. Questions to consider before implementing a distance education program include: what is the purpose, for whom, why, how will distance education improve the quality of teaching and enhance the benefits to learners, and at what cost? The survival of distance learning will depend on the ability to raise the right questions, seek cost-effective alternatives to traditional instructional practices, and to design engaging events that will bring about active, involved learners. (Author/SWC)
DISTANCE EDUCATION: BY DESIGN OR DEFAULT? *

Donald P. Ely
Professor Emeritus
Syracuse University

Bandwagon: "2a: a party, faction or other element that attracts adherents by its timeliness, showmanship, vigor or novelty; specif: such a party, faction or other element held together by or capable of attracting new members through opportunity for personal gain b: a social, cultural, or racial movement that amasses power by or as if by sheer size, momentum or internal unity c: a current or fashionable taste or trend."

Take your choice of definitions. Is distance learning a bandwagon?

The purpose of this presentation is to consider the prior questions that should be asked before deciding that distance education is an appropriate solution to an education or training problem. Some of the issues presented today stem from my recent presentation at the University of Alabama entitled: Technology is the Answer! But What Was the Question? Much of this conference is concerned with the how of distance education; I would like to concentrate on the why without being a cynic or nay-sayer. I have been involved in this area for more than 20 years and do have a vested interest.

The popularity of distance education often brings about a rush to join the innovators who have already staked their claim in this new territory. This is called the "bandwagon effect." The urgency of "doing something" is prompted by the rapid growth of the means to deliver instruction via the latest technology. In many ways, it is the technology that is driving the distance education movement rather than the needs or educational problems that exist. The most successful distance education programs in the World are those that respond to real needs; that offer an alternative to learning which would otherwise be denied or would be prohibitive in terms of cost and time.

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Examples:

The British Open University - the university of "second chance"

SMP Terbuka (Indonesia) - the university which increased access to higher education when there were insufficient teachers and places in traditional universities,

Open Learning Institute (British Columbia) - the institution that delivers instruction in many fields to people in remote locations.

The least successful are those that embraced technology without a clear understanding of who was to be served, with what type of instruction, and most important of all, for what purpose. Many of the least successful programs have been in the United States.

Examples:

University of Mid-America - 1975-1982; a consortium of 9 Midwestern universities; discontinued because of low enrollments, high production costs, and loss of funding.

British Open University in American colleges and universities - located at the University of Maryland and Rutgers University; unsuccessful largely because of cross-cultural conflicts--even using the same language; inconsistencies and misunderstandings. (U.S. learners are not very tolerant of other cultures.)

Last week's Chronicle of Higher Education (6/14/96) describes the process of planning a Virtual University for a group of Western states under the aegis of the Western Governors' Association. Let's hope that they reviewed the final reports of the UMA and BOU projects.

The purpose of this presentation is to raise the "prior" questions before an organization jumps into a distance learning program. The seeming urgency to initiate distance learning programs often bypasses the "front-end analysis" or "needs assessment" in an attempt to immediately capture the opportunities of contemporary technologies that are pleading to be employed for noble causes. The
success stories (and there are many), mostly originate with and are disseminated by
the technology-related companies, and are case studies of sexy examples that are
devoid of research (or even evaluation) data and rarely include a cost/benefit
analysis. This is clearly a time to stop and ask: what are we trying to do; for whom,
why, and how distance education will improve the quality of teaching and enhance
the benefits to learners. And we had better not forget-- at what cost?

Some less-than-enthusiastic organizations have injected a little skepticism
into the discussions. A recent publication of the American Federation of Teachers
has entered the scene by asking that 4 questions related to technology in distance
education be raised by postsecondary institutions:

1. "Does the technology make sense educationally? Will it really
   advance student learning and scholarship?"
2. "Does the technology make sense financially?"
3. "Will all students and faculty members have access to the new
technology and know how to use it?"
4. "Are faculty and staff rights protected?"

These questions are from a faculty-oriented union but are nonetheless important.
Unless faculty are involved in the decision to use distance education, it will
probably fail or fall short of its potential for success. The chair of the task force that
wrote the AFT paper says: "Unfortunately, it is not unusual for an expensive
technology to be purchased primarily because it is promoted by a large company, or
offered for free or at a discount, or because it is technically 'leading edge' or because
it is seen as a way to cut corners on faculty and facilities." The statement rings true
to me.

I have to admit that some of my thinking has been influenced by Clifford
Stoll and his current tract, *Silicon Snake Oil*, in which he poo-poos some of the hype
surrounding the use of technology in our society and casts negative aspersions
toward the Information Superhighway. He, a "true believer" who spends hours
each day online, is saying, "Wait a minute...what are we doing? What is this
technology doing to us? Are there better ways or, at least, alternatives to some of the applications that seem to have enveloped us?" Listen.

Suppose that I accept that students should spend a lot of time behind computers. What's the limit? If computers, online networks, and interactive video are so important to modern classrooms, why not eliminate the classroom entirely? Students of all levels could sit behind their computers at home, and receive quality instruction from the finest teachers. Electronic correspondence courses.

A silly proposal, reminiscent of the matchbook covers that told us to enroll in their home-study course and "get a good education and step up to higher pay." Home-study dropout rates often exceed 60 percent; it's hard to believe that an electronic version would do much better, despite the gimmickry.

The Internet can probably deliver all the information taught in a university, as can a good encyclopedia. So why go to college?


To explore some of the questions raised above, it might be useful to state some of the premises that support the implementation of distance education in schools, post-secondary education, in non-governmental organizations, business and industry, the military and the health professions.

**THERE ARE SOME UNIVERSAL AGREEMENTS THAT PROVIDE THE MOST COMPELLING ARGUMENTS FOR DISTANCE LEARNING:**

1. Distance education can reach individuals in remote locations. (This is one of the strongest arguments for distance education; it is a technical matter enhanced by the variety of delivery systems currently available.)
2. Distance education can reach individuals who cannot come to a specific location at a specific time, e.g., handicapped people, those who work odd hours, etc. (This is obvious; not an issue or a myth.)

3. Distance learners can study at their own place and at their own pace. (Another obvious advantage; not an issue or a myth BUT the corollary question is: "What help and stimulation can be given to the distance learner who sometimes feels isolated and confused?" What do we know about the characteristics of learners who study at a distance?

Now...as a devil's advocate, I will use the term: myths to provoke the thinking of all the advocates who may be listening. This is where I am going to ask you to "vote." A simple "yes," "no," or "undecided" response will help us to see where we all stand on these issues.

THERE ARE SOME MYTHS THAT ARE NOT QUITE SO OBVIOUS:

4. Distance education is an inexpensive way to deliver instruction. The potential for reaching many students can be more cost/effective than traditional on-site teaching. **DO YOU AGREE?**

5. Large numbers of learners enrolled in distance education create an "economy of scale." **AGREE?** (Yes, large numbers usually mean an economy of scale. Then, HOW they are served becomes a major issue.)

6. Distance learners are usually interactive in the process of learning. **DO YOU AGREE?**

   (Perhaps online communication enhances participation; does 1-way video--2-way audio invite interaction? When and for what purpose is interaction desirable?)

7. Repeat use of courses developed for delivery at a distance can reduce staff costs. **AGREE?** (Maybe. But, what are the arrangements with the instructors who designed the course? Who "owns" the course? What "rights" does the original instructor/designer have for repeated use? What are the guarantees that the course can be updated and improved?)
8. Two-way video is just as effective as face-to-face interaction. AGREE? (Is it?) We assume that face-to-face [traditional] teaching is the standard against which all other methods must be measured. What do we know about learning from 2-way video? Is it better, worse or the same as 1-way video; 2-way audio?)

9. Most distance learners have access to computers that are connected to the Internet or an online service. AGREE? (In some cases, e.g., the BOU Master's program, computers with Internet access may be required; in other cases, e.g., K-12 schools in the U.S., only 3% of the classrooms have such access.)

10. Adult learners are more likely to succeed in distance learning programs than elementary and secondary level students. AGREE?

(Define "success". Learning what? how often? through which media? with what type of assistance? Many questions; a few answers.)

SOME INSIGHTS FROM THE RESEARCH

In a summary of the research on distance education, Moore and Kearsley (1996) say that:

Given the evidence of research..., it seems unreasonable to continue to ask if distance education courses can be as effective as conventional classroom instruction in terms of learner achievement measures. It seems more reasonable to conclude that (1) there is insufficient evidence to support the idea that classroom instruction is the optimum delivery method; (2) instruction at a distance can be as effective in bringing about learning as classroom instruction; (3) the absence of face-to-face contact is not in itself detrimental to the learning process; and (4) what makes any course good or poor is a consequence of how well it is designed, delivered and conducted, not whether the students are face-to-face or at a distance. (p. 65)
In my opinion, it is the last statement that should be highlighted: "what makes any course good or poor is a consequence of how well it is designed, delivered, and conducted, not whether the students are face-to-face or at a distance."

Design and delivery--that is the focus; so what are the questions?

The questions are those that are raised by such professionals as Roger Kaufman and Walter Dick, both from FSU. The initial questions consider what it is we are trying to do (mission, goals, objectives) and identification of the gap between where we are now and where we want to be. This analysis includes the big problems that confront our society and the role of education in helping to solve them; it includes the continuing concern for equity of educational opportunity; and the need for education reform. At a micro level it also means placing the student at the center of the learning process, building in activities that are engaging and interactive in nature and choosing the best medium (or combination of media) from the beginning. It means having all necessary resources available at the right place at the right time (logistics); it means having a person (tutor, facilitator, counsellor) available to respond to questions and to assist in the learning process. It means quality materials, engaging teaching/learning strategies and opportunities for feedback. In short, it is systemic and different from conventional instruction that takes place in a classroom, usually group-paced, seeking some of the same goals and objectives that are used for instruction that takes place at a distance.

Chris Dede, well-known educational technology futurist says: "The most significant influence on the evolution of distance education will not be the technical development of more powerful devices, but the professional development of wise designers, educators, and learners."

Chris Dede, :the Transformation of Distance Education to Distributed Learning:
Learning and Leading in Educational Technology, April, 1996.

Dede goes on to say that "conventional distance education is similar to traditional classroom instruction, save that it uses technology-based delivery systems." He continues, "Weaving learner-centered, constructivist usage of linked, online materials into the curriculum and culture of traditional educational institutions is a next stage of evolution for conventional distance education." He goes on to say that "Learning is social as well as intellectual." and feels that distributed learning (new term emerging from "distance education") "...must balance virtual and direct interaction in sustaining communion among people." We are just beginning to explore a variety of social interactions that provide the best of both worlds: conferences, cluster group meetings, periods of residency, peer tutoring and other face-to-face interactions that complement the individual and group electronic exchanges.

Study after study has shown that learning objectives can be reached through many media and that no one medium is inherently superior to another. We may have media preferences; one medium may be more accessible than another; or it may be more cost-effective. In the long run, it is the design, delivery and interactive processes that yield "success" or "failure." We should avoid media myopia (that is, the emphasis on one medium to the exclusion of others) in determining the vehicles to deliver distance education. With a smorgasbord of communication media and information resources in the world today, the choice appears to favor those means that put learners and instructors (tutors, et.al.) in touch. Some places in the World use the postal system; others use FAX and telephone, while still others depend upon e-mail, audio conferencing and computer conferencing. Notice that all these media are communication devices, not presentation formats. Static presentations (some with built-in feedback mechanisms) can occur by text, audio, visual or graphic means using such vehicles as printed books and manuals, audiotape recordings, videotape recordings, floppy discs and CD-ROMs. These media store information for use by the learner at any time. Live presentation uses
the same media in a synchronous fashion focusing on a group (rather than individual) mode. There are many options among the static and live presentation formats, however, we tend to fix on one (or sometimes) two delivery media selected by local criteria. You have seen catalogs or lists of courses offered by television (some live and some on videotape); courses offered on the Internet or lists of audiocassette-based lectures. The emphasis in each of these examples is more on the medium than the content or the process of learning independently.

From my observations, the most successful programs are those that use a mix of appropriate media—media that are accessible and reasonable in cost—media that build in opportunities for interaction with designated tutors and/or group meetings. I have been impressed with the cost-effective projects in interactive radio (Nicaragua, El Salvador, Thailand, Kenya, Papua New Guinea, etc.); the long-standing radio-based continuing education programs from the University of Wisconsin Extension and the attractive and utilitarian mix of media in some of the British Open University courses. This is not to say that more contemporary and sophisticated media are inappropriate but, rather, to suggest that distance education is possible for all—not just those who have access to the Internet or a satellite dish installation.

You might say that I am suggesting a "back to basics" approach. Not really. I merely want to suggest that we pause before we leap onto the latest distance learning bandwagon. We are dazzled by the amazing technological developments that are available today. We seem to feel that embracing these technologies in education settings will somehow bring about the reform that many of us seek. My point is that we should pause while we ask: What are we trying to do? For whom? And why? Answers to these questions can lead to the how and an assessment of the cost in time and dollars.

A brilliant article about the future of information technology in higher education by Robert Heterick and John Gehl appeared last year in the Educom Review. They maintain that thinking about the future requires self-examination,
not prediction. They list a set of questions that ought to be raised. Here are a few of
them. Listen!

2. What will it mean to "be" a student?
3. What will credentials and degrees signify?
4. What will a course of study look like, and who will design it?
5. Will there be any difference at all between distance learning and traditional
education?
6. Will the distinction between individual effort and collaborative effort be different
in 2020 from what it is now?
7. What will it mean to be "published"?
8. What will the difference be between a faculty member and an author?
11. What will be the role of the residential campus? What percentage of students in
higher education will be seeking a first degree versus continuing education?
12. Will the calendar of 50-minute classes, 16-week semesters, summer breaks, and
so forth be continued?
13. Will the hierarchy of (research, comprehensive, liberal arts, and two-year)
institutions make sense?"

Maybe I have lived through too many disappointments during my career
in the field of instructional technology. Maybe I see some of the same danger signals
I detected during the decades of innovations with motion pictures, radio,
educational television and teaching machines when the medium overshadowed
the message. Maybe I have finally realized that the process of designing and
delivering instruction is an "art" as well as a "science" and that ultimately the most
important goal in this institution we call education is that each learner will become
more and more responsible for his/her own learning through whatever means are
available--and that such a goal is reached by first asking the right questions and then
knowing where to go to explore the possible answers. We in the distance education
area of instructional technology ought to be at the forefront in helping to reach this
goal. Technology does not change education, people do. If distance learning is to
survive, it is in the ability to raise the right questions; seek cost-effective alternatives to traditional instructional practices; and to design engaging events that will bring about active, involved learners.

Those of us who are working in this area are inventing new schools, colleges and universities that ought to be as different as yessterday's blacksmith shop and today's computer-based auto repair facility. The challenge to distance education (distributed learning) is to create an entirely new environment for learning. It does not have to be measured by what we have done in the past. It is an opportunity to actively participate in education reform. Dede says: "New media complement existing approaches to widen our repertoire of communication; properly designed, they need not eliminate choices or force us into high tech, low touch situations."

Let us pause in the midst of our frenetic activity and ask ourselves, "What are we doing...and why?"

_A Tale of Two Cities._ begins: "It was the best of times; it was the worst of times..." This could be a description of the time in which we live. I believe that it is out of such 'mes that brave people forge their victories. Join me in the movement to create a new and exciting future for our students and ourselves because we are all lifelong learners together.