Part I - Part II - Part III - Part IV

So What's The Difference?

In the previous article (Part 2) I argued that learning in a new world will take place in a wider range of settings, beyond traditional education institutions. A new term, "distributed learning," is becoming increasingly popular to describe and summarize the scenarios envisioned. In brief, distributed learning assumes that an individual learner may be engaged in an in-person or a mediated (say, via computer) session ("class"), led by a teacher/professor/instructor in the same room or remotely, synchronously (in real time) or asynchronously (at a different time). Furthermore, mediated online sessions can take a variety of forms: connected to the Internet or a local network, accessing a CD-ROM or DVD disk in one's computer, or using software stored on the computer's hard disk. "Distributed" does not mean isolated, so students in distributed learning situations should have the ability to communicate with faculty and peers, and also feel that the experience of working on one's own without (or with limited) face-to-face contact does not limit one's ability to learn.

Those opposed to distributed learning, even so-called "distance learning" in its old-fashioned (but still quite common) mode as correspondence courses, raise objections to "online learning" where instead of books and papers being shipped around via mail, students and instructors are shipping bytes from their computers via the Internet. To these critics even expensive two-way videoconferencing systems that afford the closest thing to the "being there" experience are less than the ideal: a teacher in front of a group of students.

There are four main criticisms to the non-traditional learning experiences afforded by distributed (distance/online) learning. Each one of these criticisms is linked to what is presented as an inherent advantage of the interpersonal learning situation. The advantages are said to be: (1) socialization, (2) quality, (3) interaction, and (4) cost effectiveness. The argument goes that "traditional" education settings at all levels--from elementary education to higher education, and across other settings like vocational schools and corporate and government training centers--are best for learners because they are designed to yield the four advantages named above. The first three can be linked directly to the core argument that because there are face-to-face interpersonal interactions in traditional settings, that makes them better than anything else. The economic efficiencies, viewed at least from the institutional perspective, arederived from the ability to graduate (i.e., put through the system) the largest number of individuals for the least amount of money compared toother alternatives.

The interpersonal learning experience afforded by traditional settings can range in "intimacy" from the individual tutor relationship, to seminars limited to a few participants, to classes and labs (where the number or people in the same physical space may be reaching into the 40s or 50s), to the theater-like lecture halls seen in most universities where it's not uncommon for a hundred or more students to be "in class" at a time.

Distance education first came about to deal with the fact that students (learners) could not always ship themselves out to the "places of learning"--school or university most often. Thus,

the institutions recognized that learning could take place outside their physical boundaries so long as the student accepted the rules of engagement. Students would follow a course of study under the supervision of a remote instructor with whom they would correspond at regular intervals, submitting their work for evaluation and accepting their instructor's assessment of their progress (or lack thereof). Except in rare circumstances where communication with others participating in a similar experience was possible, the large majority of times the student had one interlocutor only: the instructor.

The innovations that distance education introduced, even if we limit the discussion to correspondence-type courses, are worth reviewing briefly. First, the convenience of the student was acknowledged to be a reason to alter the traditional form of interaction, giving up on the notion that learning could only take place in the classroom and accepting the view that individuals could, when properly guided, learn on their own. Second, from the very beginning "nontraditional" students flocked to the opportunities created by distance learning, such that people who were unlikely to ever return to school to finish their elementary or high school education, or consider leaving jobs and families to complete a university degree, now had an option that allowed them to do so. Third, the cost-savings to the students were considerable, both in economic and in emotional terms. Fourth, innovations like individual study guides and alternative assessment methods evolved to fit the new circumstances for teaching students the instructor may never meet and learning from instructors students never saw. Fifth, demand in many cases was so great that many education institutions created entire divisions to support distance learning across a wide range of disciplines, providing custom-designed courses and recognizing a wider range of possible learner motivations: "continuing education" (for people who are required to regularly refresh their knowledge base) and "lifelong learning" opportunities for people (like senior citizens) who are still eager to learn something new to them.

The "boom" in distributed learning is well documented by now. In an article published in the January 7, 2000 issue of "The Chronicle of Higher Education," writer Dan Carnevale reported on a survey conducted by the US Department of Education. "The survey found that 1,680 institutions offered a total of about 54,000 online-education courses in 1998, with 1.6 million students enrolled. Certificate programs grew from 170 to 330 during the [1995-1998] period."

Those figures apply mainly to traditional higher education institutions in the United States. In corporations and governments around the world, the movement is even faster. Cost savings are often the main motivation in these settings, but learning "effectiveness" (or any other synonym commonly used in "training" environments) is also high. Consider these two quotes as examples. "Diane Oswell, assistant vice president, global human resources development [at Credit Suisse First Boston], estimates that the cost of delivering a Microsoft Excel technical support course is $150 per user in an internal classroom versus $300 in an external classroom. For traditional tutoring, the cost rises to $900. The cost via the Web is $2.50 per user. 'If you do a straight comparison, the savings can be incredible,' Oswell says." [From "Web Learning Starts to Pay Off--Companies Say web Training is Cheaper and More Measurable," by John Berry, InternetWeek, November 15, 1999, Issue 789, Section: Transforming the Enterprise.] And the second quote: "Businesses have done the math. They know, for example, that conventional classroom instruction costs hover around $75 an hour, with ull-week programs costing $3,000 to $5,000. Computer-based training, by comparison, costs about half that. What's more, training via the web can serve up instruction globally--there are no seat restrictions in these classrooms--around-the-clock, and without travel costs." [From "Learn At A Distance. Online learning is poised to become the new standard," by Judith N. Motti, Information Week Online, January 3, 2000.]

Businesses and government agencies may have looked at distributed learning initially to solve short-term problems (i.e., developing skills of their employees in specific areas), but along the way they discovered that there is a business opportunity as well. Companies like Knowledge Universe, co-owned by former financier Michael Milken and software mogul Larry Ellison, are not shy about their intentions to profit by offering ducational and training services, often in direct competition with established educational institutions. (See Edward Wyatt, "Investors are Seeing Profits in Nation's Demand for Education," The New York Times, November 4, 1999.) There's always been a business side to education (consider private schools), but changing demographics (according to the U.S.. Department of Education, 42.7% of students attending postsecondary institutions in 1996 were over the age of 24) and the need to look for alternative models that may be more cost-effective than traditional models of schooling are definitely shaping conversations about the future of education and learning.

The "boom" in distributed learning is also shaping up as an opportunity to review the received knowledge about learning, and to look seriously into the largely anecdotal evidence of students learning actively from peers as well as from the instructor and textbooks. Contrary to popular belief, learning distributed settings is not an isolated experience but an actively social one, even if mainly text-based given the available tools. We must, however, keep an open mind and recognize that, despite its limitations derived mainly from bandwidth restrictions and unsophisticated software, distributed (online, distance) learning can succeed where no other option would be available. While doubts remain about whether students can effectively learn math, history, physics, writing, and other arts and humanities subjects in distributed settings, there is ample evidence suggesting that there are "no significant differences" between residential (in-person) and online learning experiences even when the subjects were initially thought to be unsuitable to a distributed experience. Companies and training institutions are mostly convinced of the effectiveness of distributed learning when addressing technical subjects (e.g., Microsoft Excel or computer programming), and ongoing research in academic settings will continue to yield valuable information about how distributed learning "works" in traditional subjects. The evidence for "no significant difference" between in-person and online learning has been gathered over many years in a great web site (http://teleeducation.nb.ca/nosignificantdifference/).

The main question that comes to my mind when reviewing the studies collected by the "No Significant Difference Phenomenon" web site is: If there are no significant differences in learning achievement despite the current limitations in the distributed learning experience, can distributed learning evolve to be better than in-person learning once the major obstacles are removed or overcome?

If the answer turned out to be "yes," we would face some really interesting and difficult challenges, including of course the obvious social disparities in income that are linked to access to computers and telecommunications and support services.

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Part I - Part II - Part III - Part IV

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