

Impact of Distance Independent Education

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Distance independent learning has the potential for a fundamental and beneficial transformation of higher education. By combining the best aspects of our present university and college systems with the opportunities offered by recent developments in communications and information technology, distance independent learning could lead to high quality, highly individualized instruction and the creation of intellectual communities that transcend the limitations of time and space. This potential infuses the rhetoric of the proponents of distance independent learning. But much of the rhetoric around distance education is misleading and fails to articulate the potential negative effects of widespread adoption of these new instructional delivery vehicles. In this article, the authors examine the motivations behind proponents of distance education, as well as the potential impact of distance learning upon instructors and students. They also raise questions as to curricular subjects and pedagogical styles that may not be appropriate for this type of instructional delivery. The authors emphasize that the educational community must consider not just the benefits but the non-monetary costs of relying on distance independent educational delivery. Educators must not see distance education as a universal innovation applicable to all types of instructional situations, but must carefully analyze the appropriateness of distance independent learning to various types of instructional situations.

Motives behind the Movement to Distance Independent Learning

Distance independent learning promises a high quality, economical education designed for individual needs and schedules. This is a promise that might well be fulfilled with a considerable investment in equipment and design, and with a careful articulation of aims. Unfortunately, the motives of those currently designing distance

independent learning programs and the reality of the programs as put into place are often fundamentally at odds with that promise.

In point of fact, many institutions that are considering developing distance independent learning programs are unclear as to just how they might benefit by them. Distance independent learning now rides a wave of faddism and while many institutions scramble to get there first, where "there" is remains unclear. How-to seminars on setting up interactive television systems and conference sessions reporting on distance independent classroom experiences may be jam-packed, but why all those people are in the audience—other than curiosity about the latest educational style—is not always apparent. Many institutions of higher learning have placed pressure on themselves to become involved in distance independent education. But they may well not have asked themselves beforehand whether they teach the kind of material to the kind of audience that would lead to students, faculty, and the larger institution all benefiting from a shift to the distance independent format.

The motives for the development of distance independent learning programs seem to be—as they so often are in other domains—power and money. Instruction that is delivered through communications media is more amenable to administrative control than instruction that takes place in real-time, real-place environments. Given such delivery, administrators could review and edit tapes; they could stipulate that syllabi be pre-approved before instructors are granted access to the technology necessary to conduct their classes; they could easily replace undesirable faculty members by drawing upon the human resources of another campus, institution, even country.

In noneducational areas, such as industry, new infor-

mation technology has already altered the balance between the employer and employee. Telecommunications technology coupled with other forms of information automation have allowed management to take portions of the work process which formerly needed to take place in a single locale, and shift pieces of this process to wherever labor is cheapest. This has served to limit employees from getting an overall view of the workplace and work process (Berger, Berger, & Kellner, 1973) (as well as limiting workplace grievances and organizing). As a result, employee challenges to management decisionmaking are easily dismissed because only management has an overall view. (For an in-depth discussion of how information technology restructures relationships between capital and labor, see Castells, 1989, chap. 4. See also Castells, 1989, pp. 320-331, for a case study of information technology's impact on the auto industry, particularly its opening up of the possibility of offshoring.) Widespread adoption of distance learning is likely to have a similar effect in shifting the balance of power between a fragmented faculty and a strong administration.

But most institutions that are exploring the development of distance independent programs are motivated by the bottom line; they need to cut costs and increase revenue. Inherent in this pursuit of distance independent learning as a profit-making venture is the paring down and consolidating of faculty. For example, in moving to a distance independent focus, a state system could make use of a much smaller number of faculty statewide; a handful of subject experts could rotate among several campuses. Moreover, a university could provide a package of tapes and learning materials on demand, if and when a student wished to take a course, or enroll that student in a distance independent class at another campus. A likely result is that there would be less pressure to maintain faculty for disciplines in which there might be less demand. Rather than tenuring a faculty member to teach, for example, rococo art, an institution could periodically contract for one to come in and update the learning materials for that subject.

Those institutions investing in distance independent learning hope it will allow them to increase their enrollments, thus bringing in more tuition money. But economies of scale often conflict with better education, and if institutions are to profit by distance independent learning, they may well have to trade off expensive interactive technology against relatively inexpensive broadcast technology. Through simple, one-way broadcasts, new learning *can* be available to a much larger audience than is now generally possible. But it may well be a passive and mass-produced learning experience. Many cost savings are only gained through economies of scale, and thus far these have only proven possible in one-way (broadcast) systems (see Besser, "Issues and Challenges for the Distance Independent Environment," this issue). Watching a rebroadcast of a chemistry lecture is hardly the same

kind of educational opportunity as participating in a virtual seminar led by Nobel Prize-winning chemists.

In reality, for distance independent learning to justify itself solely in dollar terms, it seems likely that either its potential for being individualized and interactive or its potential for reaching a large audience will be sacrificed. To get distance independent programs to pay off, colleges and universities will either provide cheap, generic classes for the masses or highly specialized classes that target new, relatively affluent audiences, primarily corporate workers, shopping the educational world for training and retraining.

Furthermore, universities looking to enter the distance independent learning market will find themselves in competition with new commercial interests. Such interests are primarily motivated by profit rather than the traditional university values of public service and democratic education, and will give well-paying students individual attention. To compete actively with such educational corporations, universities will have to decide whether they wish to deliver distance independent learning in high quality or high quantity—or work very hard at resolving the difficulties of giving the same audience both.

Trading off the possibility of reaching a wide audience against more personalized instruction is an especially pressing consideration for small liberal arts colleges that have defined themselves as providers of a well-rounded general education with significant student-faculty contact. This is one of the main strengths of such institutions. Upon entering the distance-independent learning market, such colleges may have to either sacrifice personal attention in favor of reaching large numbers of paying students or sacrifice general education to the kind of specialized training that may work most successfully in distance independent learning. In either case they remove themselves, perhaps misguidedly, from the kind of education that has been their hallmark. Small liberal arts institutions may carve out a niche market as strong, physical, academic communities where students still spend a great deal of time with each other and their professors, rather than attempt to compete in a distance-independent learning market in which their success will be difficult.

Impact on Instructor and Instructor Community

The widespread adoption of distance independent learning could have serious economic and social implications for both faculty and students in institutions of higher learning. For faculty, there will be, quite simply, fewer jobs. Faculty could be asked to do double and triple duty across campuses or be hired on a short-term basis to participate in creating a distance independent learning package in their area. There is likely to be a high demand for faculty considered subject experts and field leaders, but decreased demand for developing young

scholars or faculty whose primary emphasis is teaching. This is part of a shift towards experts and specialists which is coming to prominence in a wide variety of domains in the late-20th century. (For a discussion of this shift to a sort of "cult of expertise" and its relation to technology, see Besser, 1988.) Paralleling this would be a shift from an institution maintaining a tenure-stream faculty carrying on ongoing teaching and research at a central location to the large-scale out-sourcing of teaching responsibilities. While this would be laudable in providing student access to the most prominent minds of their fields, it would also subject scholarship to the vicissitudes and whims of the market. If out-sourcing is carried to the extreme, no faculty will be left to organize a well-rounded curriculum.

By allowing such centralized control, distance independent learning might also pose threats to academic freedom. A handful of experts could determine for a large audience what the "right" texts and ideas are, and marginalized and dissident voices could be effectively shut out by being restricted from access to the technological means to disseminate their ideas. This could lead to a more centralized notion of the canon and of disciplinary boundaries.

While diminishing the use of salaried, benefited faculty, distance independent learning could also promote greater use of relatively cheap graduate student and adjunct faculty labor. If a specialized expert is hired to produce learning materials for audiences in diverse locations, then advanced students or faculty without full-time work can be hired on a per student or per course basis to grade and check assignments and, perhaps, to meet with students and provide face-to-face contact. Many academics—probably too many—already pass through a phase of poorly paid adjunct teaching in order to gain experience. Excessive reliance on distance independent learning could transform this kind of teaching from a rite of passage to a permanent condition.

A primarily distance independent learning faculty would also lack the opportunity for cross-disciplinary contact and cross-fertilization of ideas that comes from being on the same physical campus. In addition, it would find itself at a disadvantage in organizing—for anything from greater benefits to academic freedom. University campuses already are difficult places to unify because different schools and departments have different ends and means. The loss of a common physical location can only exacerbate this difficulty. This loss not only diminishes the possibility of any collective faculty action, but may well mean that there is less faculty commitment to their institution. It is difficult to identify with something that is not there.

Impact on Student Experience

The potential negative effects of distance independent learning are not trade-offs between faculty losses and stu-

dent gains. Students, too, are likely to suffer when taught primarily through distance independent media. Like their faculty, they will experience difficulty in building and participating in an intellectual community, perhaps even more so as students often have less practice and motivation in finding such a community.

With less opportunity for physical community comes less opportunity for new learning experiences. Physical attendance at a college or university often catapults students into all kinds of new experiences, both in the classroom and out, sometimes against the students' inclinations, but still benefiting them in the long run. When students participate in distance independent learning from the safety of their own work station or local classroom, they are buffered from the shock of the new, and it is all too easy for them to retain complacent and easy world views.

To state the obvious: Distance independent learning imposes distance upon students—distance, perhaps, from their classmates, and distance, almost certainly, from their instructors. Such distance, both physical and psychic, makes it difficult to build collaborative relationships among students, and difficult to build strong mentoring relationships between students and faculty. The cooperative classroom experience—with all its frustrations and all its opportunities for growth—may well fragment into individual students working on essentially independent study programs. Within these independent study programs, the instructor will be one limited tool among a set of others.

Distance independent learning poses a significant challenge to university education as a whole. Distance education courses focus on curriculum, but much of the educational experience revolves around membership in a cohort of classmates, working together on projects, supporting each other, and in some way mimicking the worklife that follows their degrees. Stanford President Gerhard Casper has cautioned that distance learning may eventually lead to the destruction of the residential university experience, and with it the elimination of the experience of socialization and peer interaction as well as the experience of challenging traditional values and ideas (Casper, 1995, p. 8).

Important Questions

For distance independent learning to fulfill its potential and become a tool that augments and supports traditional education rather than just cheaply replacing it, a series of questions must be addressed by educators and students—addressed to a level of detail that most discourse has thus far avoided:

What Is the Appropriate Subject Matter for Distance Independent Learning?

Distance independent learning may well be better suited to some disciplines than to others. Math classes

may do well with a series of televised lectures supplemented by meetings with a TA (teaching assistant) and by online work. Philosophy may not be as amenable to this type of delivery system. Students may learn more about a poem when working with a version annotated with hypertext than in reading it out loud with fellow students. We do not yet have a clear idea of which subjects thrive in the distance independent setting. And we need to find out before committing to large-scale distance independent course offerings.

Is Distance Independent Learning Viable for the Liberal Arts?

As we discover which disciplines are adaptable to, or benefit from, distance independent media, we may consider the possibility that distance independent learning is simply not suited to the widespread delivery of a liberal arts education. For students to achieve the liberal arts aim of becoming well-rounded, critical, social thinkers, they may have to spend some time in a physical academic community. This is not to say that distance independent learning could not enhance that education, but perhaps it should have a supplementary rather than a central role.

What Is the Appropriate Context for Distance Independent Learning?

Some of the great successes of distance independent learning have been in the context of training rather than teaching. Perhaps distance independent delivery is best-suited for communicating a fixed and narrow set of skills and goals to an audience defined by a desire for those skills. Training students to do computer image processing through a series of video and computer modules may succeed resoundingly, while leading students through an interactive video discussion of the concept of providing intellectual access to a collection may fall flat.

What Is the Appropriate Teaching Methodology for Distance Independent Learning?

Once we have made choices about what subjects are suited to distance independent learning, we must ask how these subjects will be taught. This will be a question

to ask about both teaching media—video, CD ROMs, interactive television, Web sites, pen and paper exercises—and about teaching methodology. For which situations should we make use of a seminar format, which are better with a lecture format, how can question and answer sessions be conducted, how can we create distance independent student-teacher conferencing? All of the questions we ask about appropriate teaching methodology in a conventional setting will need to be reformulated by adding the dimension of distance independent delivery.

Conclusion

The largest question and the one we need to ask consistently and repeatedly is the question of whose interests are really being served in distance independent learning programs. If we can develop programs that relieve the financial pressure on our institutions of higher learning, if we can develop programs that open up the possibility of new and exciting teaching rather than exploiting faculty labor, and if we can design curricula that make wise use of the opportunities offered by distance independent media, then we will have begun to realize the educational potential of current information and communication technology.

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