

EDUCATION AND DIVERSITY

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When I was asked some months ago to come up with a title of today's session, I proposed "Education and Diversity," because it seemed to me to be the theme that would best capture the changing scene in higher education today. I would like to address myself to two kinds of diversity -- internal and external. By internal diversity, I refer to the new variety of students that have been brought into higher education during the past two decades of emphasis on equal opportunity. By external diversity, I mean the recent explosion in the number and variety of learning options that have been brought about by the new demands for lifelong learning.

First a few comments on the diversity of students within colleges, especially the open admissions colleges that now serve the majority of all college freshmen and sophomores. Ninety-nine percent of the community colleges and a majority of the four-year colleges in this country are now open-admissions colleges. Over the short time span of two decades, post-secondary education has replaced a comfortably homogeneity of selected students with an uncomfortable heterogeneity. Students today enter colleges from the ghetto, the barrio, the reservation, and the suburbs; they

are 20, 30, and even 70 years of age; there are women preparing for lifetime careers, faltering students unsure of their academic skills, hopeful students--the first in their families ever to attend college. Having waged a vigorous campaign for equal access, society now expects colleges to go beyond mere access to make college for the masses something more than a hollow victory.

Twenty years ago, John Gardner asked, "Can we be qual and excellent too?" We are still struggling with the anwer to that question. In the 1960s and 70s we concentrated on trying to bring about equality; it looks as though we are going to spend the 1980s and 90s concentrating on quality. Whether we can bring the two together remains to be seen. But there is a lot of effort going into improving the quality of American education right now.

Within the past week, we have been bombarded with reports from special commissions studying education. The National Commission on Excellence in Education has been receiving a great deal of media coverage on their recommendations for improving the quality of education. Walter Mondale unveiled his plan for educational renewal in a speech this past week at Harvard, and it appears that money for education will become a major plank in his presidential campaign. At the state level, "high tech" with its demands for effective educational systems has grabbed the attention of legislators and governors who are engaged in a

new competitive struggle to put their state on top in the race for an educational system that can support the "high tech" economy.

As welcome as this new surge of interest in education is, I worry that education is once again concentrating on a single issue to the exclusion of other considerations of equal importance to society. The perspective that I think is missing in the current single-minded rush to recover lost standards is attention to the world that is growing up outside of higher education. Few people today are looking at how changes in the external world are changing the role of education in the society. Those changes are related to two factors--the demographics of the birth rate and the arrival of the technological revolution.

You probably know the demographic facts. In this decade, adults between the ages of 35 and 44 will be the fastest growing age cohort in the nation, increasing their numbers by 30 percent by the end of the decade. Young adults between the ages of 18 and 24, on the other hand, are the most rapidly decreasing age cohort; their numbers will decline by 16 percent by the end of the decade. Not surprisingly, college enrollment statistics reflect these demographic shifts. Between 1975 and 1980, older students 25-34 increased twice as fast as 18-24 year olds; students 35 years of age and older entered college at $3\frac{1}{2}$ times the rate of students of traditional college age, and part-time students increased $2\frac{1}{2}$ times as fast as full-timers (Grant and Eiden, 1982, p. 93).

The phenomenon of lifelong learning, however, goes beyond demographics to reflect changing needs and changing lifestyles. Almost certainly knowledge is power in the emerging technological society--for individuals, organizations, and society as a whole. It is inconceivable that education will be less important tomorrow than it is today. From the ancient occupations of agriculture and fishing to the futuristic "high tech" occupations, workers will need to be better educated than ever before.

More education for more people for more years of their lives would seem to make education a growth industry. It is only higher education's obsession with the demographics of the birth rate that obscures the fact that education in the broad meaning of that term, is of growing importance in the society. We have all heard it said that the railroads failed, not because there was no longer a need for their services--indeed the need for transportation was growing at the time--but because the tunnel vision of the railroad operators concentrated on running the railroad instead of exploring the new frontier of the transportation industry. There is a danger that the new breed of managers in colleges and universities are so busy attending to the running of their colleges that they are unaware of the changes in the external world that constitute an expanding education industry.

If we looked to the broad future of education rather than to the narrow future of any particular brand of education, what

would we see?

First, we would see a greatly increased need for learning, for more people and for more years of their lives. Second, we would see a wider range of offerings and an explosive increase in the number of organizations providing education. Third, we would see a new worldwide perspective on lifelong learning.

Let me set forth five propositions to make concrete my basic thesis that the role of colleges and universities is changing dramatically and permanently under the impact of the Learning Society.

Proposition One. Proposition One is that higher education no longer enjoys a monopoly. In yesteryear when college students were typically late adolescents whose primary occupation was going to school, if they were engaged in education at all, it was full-time at a college. They were not exposed to other options, nor did it occur to them to shop around. Colleges sometimes competed with one another for students, but higher education in the aggregate enjoyed a near monopoly on formal education.

Today adults who enroll in college classes, whether for credit or not, voluntarily choose that option from a large number of possible alternatives, including courses offered by employers, labor unions, professional associations, community organizations, television, and a host of other providers. Higher education today provides a little over a third of the organized learning

opportunities for adults; the remaining two-thirds is provided by a vast array of non-collegiate providers, many of whom offer everything colleges do and more. They may offer credit, degrees, education leading to promotion, licensure, personal fulfillment, intellectual stimulation, practical skills. You name it and you may be sure someone offers it. Industry, for example, spends not mere millions but billions of dollars annually on the education and training of employees. Business currently allocates more money for education and training than all fifty states combined allocate for higher education (Lynton, 1982). Aetna, Xerox, IBM, and other corporate giants have built campuses with classrooms and residence halls that surpass anything offered in our most exclusive and expensive colleges. Professional associations too are becoming the builders of vast educational networks. The American Management Association conducts 3200 programs annually, and enrolls 100,000 learners, but even they have no corner on the market for business education. It is estimated that 3000 different providers conduct some 40,000 public business seminars each year. Thus Proposition One states that higher education faces unaccustomed competition from other providers of education in the society.

Proposition Two is related to Proposition One. It states that the roles of educational providers, once reasonably distinct, are increasingly blurred. It is no longer clear what courses merit credit, who may offer it, or who needs it. Academic purists like to make a distinction between the education offered by colleges and the training offered by industry, but such distinctions are difficult to maintain. Non-collegiate organizations have moved into education almost as fast as colleges, especially community colleges, have moved into training, and the distinction is now blurred beyond usefulness -- at least when applied to providers. Colleges are heavily involved in training as well as in education, and the programs of many corporations contain as much emphasis on theory, research, and personal development as those of any business school. Listen to this description of IBM's Systems Research Institute:

The Institute's educational philosophy is in many ways that of a university. It stresses fundamental and conceptual education and allows students to choose those courses that will best nurture their own development. The intent is to stimulate and challenge, to teach the theoretical and the practical, to discuss and argue differing viewpoints, to broaden the individual, focusing on his or her special skills (IBM Systems, 1981, p.6).

Contrast that broad educational philosophy with this course description taken from a college catalogue. The course is called Airline Reservations and carries three academic credits. The description reads as follows:

Prepares students for airline employment opportunities through a familiarization of the procedures involved in airline reservations, the use of official airline guides, and airling route structures.

If one were given a blind sample of course descriptions today, it would be hard to tell whether they came from industry, colleges, museums, labor unions, or professional associations.

A related blurring of educational functions occurs in the distinction between credit and non-credit learning. Within higher education we have certainly muddied the waters by some shifting of non-credit, non-funded courses to the credit, funded side of the ledger. Outside of higher education, non-colleges are beginning to offer not only fully legitimate credit courses, but full-scale degree programs. In the Boston area alone there are four new degree-granting programs founded by corporations -- a hospital, a bank, a consulting firm, and a computer manufacturer. While the image of Bachelor's and Master's degrees offered by these non-colleges is still mildly sensational, the movement of collegiate institutions into the realm of non-credit instruction is now commonplace. Between 1968 and 1978 more than a thousand colleges introduced non-credit programs on -- or more likely off -- their campuses. Today it is the norm rather than the exception for degree-granting

institutions to be involved in non-degree instruction.

But whether a course was originally taken for credit is not especially important today. It is increasingly easy to convert non-credit learning into college degrees. Just a decade ago only about a third of American colleges granted credit if students could demonstrate on standardized examinations that they knew the material; today 84 percent of all colleges grant credit by examination. Ten years ago, only 14 percent of the colleges would consider granting credit for experiential learning; today 41 percent do (Stadtman, 1980).

Historically, colleges have been reasonably generous in accepting credit from other colleges; today they are increasingly likely to endorse learning regardless of its source. The American Council on Education's Office of Education Credit lists over 2000 courses offered by more than a hundred corporations, that appear worthy of college credit.

Illustrations of the blurring of once distinctive functions for higher education could be extended, but my point is that the education frontier is very large, and higher education is not alone out there. Thus Proposition Two states that the roles of the various educational providers in the Learning Society are far from clear, and that blurring of functions rather than distinctiveness seems to be the trend.

Proposition Three states that higher education no longer has the full-time commitment of students -- or for that matter of faculty.

In the past decade, the proportion of part-time students enrolled for college credit has gone from 32 percent to 42 percent, and 52 percent seems likely before the end of the decade. We used to think that the growth of part-time students was primarily a community college phenomenon because part-timers now make up more than two-thirds of the community college enrollments, but part-time students between the ages of 25 and 34 are now growing twice as fast in four-year institutions as they are in community colleges. Thus the rise of the part-time learner seems a universal phenomenon for all providers of educational services.

While faculty of an earlier era may have complained that students were not giving undivided attention to their studies, traditional students were at least in the college environment twenty-four hours a day. They lived in an unreal "city of youth," and their full-time occupation was with the social and intellectual demands of college. Formal education is now changing rapidly from a full-time commitment for four years of a student's life to a part time commitment for forty years. The first priority of the adult learner of today is not college, but job, family, and an array of other adult responsibilities that serve as enhancers, detractors, and sometimes inhibitors of education. Thus Proposition Three states that higher education faces unaccustomed competition for the time and attention of students. Education cannot do whatever suits institutional convenience and

assume that students can and will go along with it.

Proposition Four states that learning has become a lifelong necessity for almost everyone. There are very few jobs left in this world that are immune from the necessity for retraining and constant upgrading of skills and knowledge. The development of human capital is now recognized as a fundamental and necessary component of progress in this era of technological change and international competition. In today's climate, the widening gap between the skills available in the work force and the skills needed for economic productivity is nothing short of alarming. While the want ads burgeon with appeals for technically competent personnel and employers offer bounties for employees with the basic skills necessary for learning new tasks, thousands of unemployed provide tragic testimony to the gap between supply and demand for educated workers.

Lifelong education for jobs is the most visible symptom of social change. But in that change, from full-time education for a few years to part-time education for a lifetime, lie changes for curriculum, instruction, delivery systems, and lifestyles. So far in the history of industrialized nations, there has been a pronounced tendency to increase the separation between education, work, and leisure. The result has been termed the "linear lifeplan" in which education is for the young, work for the middle-aged, and leisure for the elderly. But that lifeplan is changing. A study of the progression and influence of the linear lifeplan in the

United States warns that "There can be little doubt that many of our most serious and persistent problems stem from the ways in which education, work, and leisure are distributed throughout lifetimes" (Best and Stern, 1976, p. 24). The major social problem is unemployment. Although that problem is especially critical right now, it is not new. For the past fifty years, society has been unable to provide jobs during peacetime for everyone willing and able to work. A blended lifeplan (Cross, 1981) in which education, work, and leisure are concurrent throughout the lifespan can address not only the urgent demands for lifelong education for the workforce, but it can also address personal and societal problems that are arising for youth, the elderly, two-career families, and mid-career executives. There are increasing demands from a variety of people for greater balance in their lives -- more job-sharing, more part-time educational arrangements, more leisure (Cross, 1981).

A statewide survey completed last year in California showed that 42 percent of the adult population had participated in at least one course, class, or other organized learning activity in 1981. Your participation in Alumni College is another example of the pervasive spread of education and learning across the lifespan. One of the most spectacular examples of lifelong learning, however, is seen in the success story of Elderhostel, which started with a few colleges in New Hampshire offering a week of college classes

in the summer for people 60 years of age or older. This summer over 600 colleges will be offering courses to some 78,000 elders studying in the United States, England, and Scandinavia. Thus Proposition Four states that learning will be lifelong and widespread, and that it will be blended with other adult activities.

Proposition Five comes full circle. It concludes that education will play new roles in the society of the future. There is widespread agreement now that we are facing a major revolution in society. It has been called The Third Wave, the Information Society, and the Technological Revolution. Whatever its nomenclature, the direction seems clear. Jobs, the economy, and lifestyles will be based on the creation and distribution of information. In 1950, only 17 percent of the jobs in America involved the processing of information; today more than 60 percent of all workers are creating, processing, or distributing information. Taking note of such changes, the Office of Technology Assessment of the United States Congress concluded that "The so-called information revolution, driven by rapid advances in communications and computer technology, is profoundly affecting American education. It is changing the nature of what needs to be learned, who needs to learn it, who will provide it, and how it will be provided and paid for" (OTA, 1982, p. iii).

Our neighboring university in Cambridge gives vivid testimony to the call for dramatic changes in the way education is provided

and paid for. The Department of Electrical Engineering and Computer Science at M.I.T., on the occasion of their hundredth anniversary, issued a report called Lifelong Cooperative Education (M.I.T., 1982). The title is significant; it suggests that the future of engineering education should be continuous throughout the working life of the engineer and that it will be provided by industry and education working in partnership. The report rejects the notion that a few years of formal education can provide an adequate foundation for half a century of professional work. They note that in engineering it is more than a question of keeping up with new developments. Recent technological developments have not even been based on the same scientific and mathematical knowledge that provided the foundation for earlier models. Thus engineers who have been out of school for more than

a few years face the probability that the very foundations of their knowledge are obsolete. Professor Louis Smullin of M.I.T. was quoted in a recent issue of Time Magazine (October 18, 1982, p. 100) saying that engineers "are washed-up by the time they are thirty-five or forty, and new ones are recruited from the universities." But as the M.I.T. report observes, the demand of the 1980s cannot be met by replacing "obsolescent" engineers with new graduates, even if that were a humanly acceptable plan. Thus they conclude that, "The only apparent alternative is better utilization of the presently available engineering workforce through continuing education at the workplace, with the active encouragement and support of

employers" (M.I.T., 1982, p.6). To the Centennial Study Committee, lifelong cooperative education is essential for three reasons:

1. Universities acting alone have neither the human nor the financial resources to carry out a lifelong educational program on the scale required. . . .
2. Engineering faculties cannot by themselves keep up with the knowledge explosion. Close collaboration between engineering faculties and their industrial colleagues is essential if new knowledge is to be distilled from the literature and widely disseminated at the rate at which it is being generated.
3. Engineers in industry and their university colleagues need a supportive environment in which they can teach and learn from one another. A concerted effort will be required to bridge the many gaps -- organizational, social, and temporal -- that now separate 'work' and 'study' (M.I.T., 1982, p. 6-7).

Although these recommendations for radical change in education come from an educationally conservative engineering school, they are a precursor of things to come across the wide variety of educational institutions. Community colleges, with a tradition of working closely with employers, are at the forefront of the new cooperative efforts between education and industry. In 1981, more than 40 percent of the community colleges in the nation had formal cooperative agreements with employers -- up from 20 percent just five years earlier (Young, 1981).

Thus Proposition Five asserts that the providers, the organization, and the role of education in the society is changing.

These five propositions taken together will, I believe, affect education profoundly. We are, of necessity, serving more people

for more years of their lives with greatly expanded options for learning.

Educators in general will have to begin to address more than one issue at a time. We cannot afford the luxury of linear concentrations--access for two decades, then quality for two decades--while the world about us is changing and demanding new responses from higher education.

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