

Higher Education and The Learning Society

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I am very pleased to be here--but you should know that to get here I broke one of my most sacrosanct rules about travel in the winter: Never accept an invitation to speak from anyplace colder than Boston.

The reason I'm here is to see for myself what manner of college it is that has sent us two people of the calibre of Al Michalek and Rick Hook and to see if Humber College is as good and as interesting as they say it is. There is, after all, an entire generation of Al's classmates from my course on community colleges who are out in the world now, telling people, I'm sure, how they do it at Humber.

As a matter of fact, I am convinced that Humber is probably far more tuned in to the changing world about us than the great majority of colleges in the United States or Canada. Community colleges, in general, are closer to the cutting edge of change that is creating what might be called a macrotransition for higher education.

While almost any generation witnesses extensive social and economic change, we happen to live at the confluence of more change than any society has ever experienced before.

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For those of us who work in education, the megatrend that is changing our experience is called the learning society.

The learning society has major interpretations. One refers to the fact that we live in a society which is increasingly dependent on knowledge. Know-how and ideas have replaced land and machines as the economic asset of our society. Where we once talked about the agrarian society and then the industrial society we now talk about the learning society.

The second interpretation refers to the pervasiveness of the activity of learning. When learning spreads beyond schools and colleges to pervade the workplace, senior citizens centers, and ships-at-sea, and when people of all ages and from all walks of life participate in learning activities, then we can legitimately refer to the society in which all of this takes place as a learning society.

If you accept these two interpretations of the learning society, then the broad implications for higher education would appear to be these: first, if knowledge is the chief economic asset in society, then colleges must hold a position of high esteem and high importance to society. And second, if learning is pervasive throughout the organizations and people of society, then colleges are only one of many providers of education for adults--first among equals, so to speak.

I would like to take the first few minutes this afternoon to talk about broad-based social and economic change. I will then spend the remaining time setting forth six propositions that illustrate the impact of the learning society on higher education.

Alvin Toffler (1980) says that society is currently riding a great wave of change which he labels The Third Wave.

The First Wave, which was the agricultural revolution, took thousands of years to play itself out. The Second Wave, the industrial revolution, took about three hundred years.

"The Third Wave," says Toffler, "will sweep across history and complete itself in a few decades" (1980, p.10).

Toffler uses the metaphor of waves to suggest that there is a leading edge of change that begins to form while other waves are still rolling and cresting across the planet.

The leading edge of the industrial revolution, for example, began to form in Europe while the agricultural revolution was still changing the society from migratory foraging groups to scientific agriculture in other parts of the world. The leading edge of the Third Wave, with its high technology and knowledge-based economy, is colliding with the machine-based economy of the Second Wave in most of the industrialized nations of the world today.

Recently, a number of authors, who write mostly about business organizations and the economy, have promoted the thesis of dramatic change in the economic power-base of our continent. Rosabeth Kanter, the respected Yale scholar on business management, talks about a renaissance in corporate America which emphasizes the importance of people to productivity and profits. She maintains that scientific management theories are "out" and human development is "in." It goes almost without saying that if business is going to turn from designing management systems to developing human capabilities, then education and the learning society have enormous economic value.

Peters and Waterman (1982), the authors of the best-selling book In Search of Excellence, strike pretty much the same theme. They found that the most successful corporations are "truly-unusual in their ability to achieve extraordinary results through ordinary people...." Their advice to corporations wanting productivity and the financial rewards that go with it is to treat workers as their most important asset. "Treat people as adults," they say, "Treat them as partners; treat them with dignity; treat them with respect. Treat them--not capital spending and automation--as the primary source of productivity gains" (p.238).

If business is going to bet its future and its profits on the knowledge and ideas of people, those people are going

to have to be well educated. Remember, that these authors are talking not just about so-called leaders and decision makers but about the "average Joe and the average Jane" who are being encouraged to think, to learn, and to contribute actively to their jobs. The fact that some of the hierarchies in business are being replaced by flatter organizational patterns means that individuals in even modest supervisory positions are being asked to go beyond providing information to higher echelons to making decisions and understanding the role of their activities in the broader context of the organization (Lynton, 1984).

No doubt most of you have been reading something about these new theories on business management. Many of them are best sellers in education as well as in business. My point in reviewing the dependence of the Third Wave on knowledge and learning is to set the stage for some discussion of the impact of this interpretation of the learning society on higher education.

The pressures for change on colleges and universities are sufficient now to call for a new lens through which to view the changing role of higher education in society. That new lens might be likened to a wide-angle lens which includes a great variety of educational providers and an unprecedented diversity of learners of all ages.

For the purposes of our discussion today, I would like to look at the education industry through the wide-angle lens of the learning society. To do that, let me set forth six propositions. The propositions are derived from an analysis of current trends and happenings and then projected onto my crystal ball of the future.

Proposition One. Proposition One is that institutions of higher education no longer enjoy a monopoly on the provision of educational services. In yesteryear when college students were late adolescents whose primary occupation was going to school, if they were engaged in education at all, it was typically as a full-time college student. Colleges sometimes competed with one another for students, but students didn't have a lot of other learning options.

Today, the most rapidly growing population of college students consists of adult part-time learners. More than one-third of all college students in the United States are now 25 or older, and 72 percent of these students attend part-time (Chronicle of Higher Education, May 4, 1981, p.3). We should remind ourselves that adults who enroll in college classes voluntarily choose that option from a very large number of possible alternatives, including courses offered by employers, labor unions, professional associations, community organizations, television, and a host of other providers. The Canadian researcher, Alan Tough, has documented the prevalence of self-directed learning, and software companies are busy

producing programs that expand greatly the options and potential impact of self-directed learning on our society. Colleges today provide a little over a third of the organized learning opportunities for adults; the remaining two-thirds is provided by a vast array of schools and non-collegiate providers, many of whom offer everything colleges do and more. They may offer academic credit, degrees, education leading to promotion, licensure, personal fulfillment, intellectual stimulation, and practical skills. Industry, for example, spends billions of dollars annually on the education and training of employees. The Canadian Furniture Manufacturers Association, to cite one example, is producing a wide range of instructional video tapes to be used in the continuous education of employees. Aetna, Xerox, IBM, and other multinational corporations are building campuses with classrooms and residence halls that rival 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 3,200 programs annually, and enrolls 100,000 learners, but even they have no corner on the ^{expanding} market for business education. It is estimated that 3,000 different providers, many of them private entrepreneurs, 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. Indeed the distinction that we used to make between the education offered by colleges and the training offered by industry, is difficult to maintain--at least when applied to providers. Colleges today 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 college. Consider, for example, 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 airline 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, museum, labor unions, or professional associations.

A related blurring of educational functions occurs in the distinction between credit and non-credit learning. Within higher education the waters have been muddied 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 non-colleges-- 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 in the United States introduced non-credit programs on--or more likely off--their campuses. Today it is the norm rather than the exception for degree-granting colleges 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 colleges in the United States granted credit if students could demonstrate on standardized examinations that they knew the material; today 84 percent 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 2,000 courses offered by more than 180 corporations and government agencies, that appear worthy of college credit to faculty members conducting on-site visits.

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 increased enormously throughout North America, and part-time students will probably be the new majority before the end of the decade.

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 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. There have been efforts in Canada and the United States to put a cap on the exploding growth of part-time students, but such efforts, I think, are somewhat akin to the auto-manufacturers trying to buck the trend toward smaller more fuel-efficient cars by ignoring the demand and trying to stifle the competition. ~~of~~ Part-time students are an inevitable phenomenon of the Learning Society; There is no indication that they will go away. 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 or 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 labor-intensive services. 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.

There is a growing gap between the supply and demand for ~~re~~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 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 a study of the progression and influence of the linear lifeplan warns that "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, ~~and~~ ^{and} that problem 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).

Proposition Five is almost proposition 4 1/2, but the distinction between lifelong learning and adult education deserves its own space. In North America, we tend to equate lifelong learning with adult education. In Europe, and especially in the publications of UNESCO, they make quite clear that lifelong learning begins at birth and ends at death. The grade schools, high schools, and colleges working primarily with children and young people should be just as concerned about education for lifelong learning as adult educators. The official UNESCO definition is that,

The term 'lifelong education and learning' denotes an overall scheme aimed both at restructuring the existing education system and at developing the entire educational potential outside the education system; in such a scheme men and women are the agents of their own education.

The definition contains, among other things a basic challenge to schools and colleges to develop the educational methods that will prepare young people for their futures as lifelong learners. Ted Sizer (1984), in discussing the needed reforms in high school programs, claims that "a self-propelled learner is the goal of a school, and teachers should insist that students habitually learn on their own" (p.216). That becomes especially important as we envision a future in which millions of adults are added to the ranks of learners. Schools and colleges need to develop self-directed

learners who are motivated and capable of establishing learning goals and selecting from the many options available those which best meet their needs. The learning society will require sophisticated consumers of educational services.

Most traditional education, however, is still geared to the notion of teachers as experts and students as empty vessels to be filled. Alvin Toffler, futurist author of The Third Wave, claims that "the reasons schools are in deep trouble today is that they no longer simulate the future, they simulate the past" (Toffler, 1981). Schools devised for the factory world emphasized virtues such as obedience, punctuality, and the willingness to do rote work because those were the demands of the Second Wave workforce. Despite the arrival of the Third Wave, dominated by electronics, telecommunications, and the information society, schools still simulate the standardized work patterns of the factory. Everyone arrives for class and departs at a common time; students move on to the next lesson en masse, whether they have learned the material or not, and there is still an emphasis on absorbing information, despite the futility of that mode of education in the era of the knowledge explosion.

New knowledge is created faster than it can be learned or taught. Between 6,000 and 7,000 scientific articles are written each day, and information doubles every 5.5 years. The problem for the future is not the supply of information, but the selection. People need to know how to select appropriate

information from an overwhelming array available, and they need to know how to use it in conceptual thinking. We're talking about something far more basic to education than technical and scientific training. We're talking about the need for broadly educated people with the skills that will serve as the foundation for a lifetime of learning. That calls for fewer information-laden lectures and more active analysis, synthesis, and application of knowledge on the part of students. Teachers who see their role as providers of information can and will be replaced by machines. Teachers who nurture, inspire, and assist in cognitive growth and intellectual development cannot be replaced by machines. They are our greatest resource in the development of human capital.

Proposition Six 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 the United States 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).

The colleges and universities that are at the forefront of these changes tend to be those that are by the nature of their curriculum or mission closest to the changes taking place. 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 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 work-force through continuing education at the workplace, with the active encouragement and support of employers" (M.I.T., 1982, p.6).

To the ^{MIT} 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 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. Thus Proposition Six asserts that the providers, the organization, and the role of education in the society is changing.

These six propositions taken together will, I believe, affect higher education profoundly. They raise questions about how higher education should respond to extensive societal and technological change. I have contended that educators should be thinking about more than new ways to deliver the standard curriculum, about more than convenient schedules and locations for new populations of learners, about more than increasing the accessibility of lifelong learning opportunities. Rather, it seems to me that the task is to reconceptualize the role of postsecondary education in the learning society.

That is not a task for the remaining few minutes of this lecture, but by way of conclusion, let me illustrate how reconceptualization might affect one part of the college in the 21st Century, namely relationships between the college and its students.

The learning society calls for thinking about students as permanent members of an extended academic community. The concept of a continuing educational relationship with students is far

more exciting than the old alumni relationships that depended heavily on loyalty and money. Yet many colleges have been slow to capitalize on this potentially powerful turn of events. How can Humber College serve a permanent student body?

In the first place, students are going to be looking for on-going relationships with teachers and with the academic community. Indeed, as the M.I.T. Report points out, *(and as many of you know 1st hand)* the extended academic community will have teachers and students in the workplace as well as on campus, and "the same individual may be both a student and a teacher, at different times or even simultaneously" (M.I.T., 1982, p.44). With the emergence of computer networks and telecommunications, it will be possible to participate in an academic community that extends around the world. Practitioners, researchers, and theoreticians will join forces in continuous learning.

Methods of classroom teaching will also change under the combined impact of lifelong learning, the information society, and the technological revolution. Classroom teaching has remained unchanged for centuries. The formula is simple. Professors tell students what they know. For many reasons, that formula is no longer adequate. In the first place, professors cannot keep up with the information explosion themselves. One estimate contends that a compulsive psychologist would have to read 30 to 40 articles and books each day just to keep abreast of the current literature. Professors as well as students will have

to become experts in the selection and retrieval of information rather than its organization and storage in the human brain.

A second change for classroom teachers has been known for some years; we just haven't done much about it. That is the fact that telling students about something is a very low-power learning device when far more powerful interactive methods are coming into existence via technology, but also via teaching techniques.

A third reality of the future for classroom teachers is that teaching and learning will have to be geared to the escalating pace of change. When change is extremely rapid, it does little good to teach facts or skills which are quickly outdated. Content learning will be useful and necessary at any given time, but it cannot be the foundation of a college education. A foundation built on rapidly and constantly changing content will crumble under the demands of lifelong learning. Learning how to learn, which means gaining the cognitive skills and attitudes that characterize the lifelong learner will be the task of students in the information society.

Advising, career planning, and placement also take on new dimensions when viewed through the wide-angle lens of the learning society. None of these activities are ever "over and done with." Career planning is a lifelong challenge that changes with the life stage of the planner. Planning for an entry-level position with a 20-year-old is a very different activity from

planning a career change with a 50-year-old. The professional knowledge and skill required of counselors and advisors escalate sharply with the need for increased understanding of the states of adult growth and development. These examples of changing relationships between the college and its students just begin to scratch the surface of the changes that lie ahead.

Professionals in education, whether teachers, administrators, counselors, or researchers, will do their jobs differently under the impact of a student body that encompasses all ages and that comes from the workplace as well as prepares for it. Students of the future will be, in many cases, older and wiser in the ways of the world and their jobs than those who teach and counsel them. Their interest in the institution will be based on this year's or last year's experience with it, not on what they remember from twenty years ago, which tends to be charitable in obliterating the petty annoyances and failure of educators to address their needs.

The learning society will be an exciting challenge to all of us who work in education. We will make many mistakes as we try to keep up with it, but the greatest mistake would be not to accept the challenge, not to respond to new times and new kinds of students, not to join with others in making the learning society all that it can be.

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