

LEARNING HOW TO LEARN IN ADULT EDUCATION

K. Patricia Cross

Harvard Graduate School of Education

If Sleeping Beauty had dozed off in class at the University of Bologna in the 12th Century and been awakened recently by all of the noise about educational excellence, she would have awakened to a classroom that was quite familiar to her. Although generations of students and teachers have come and gone; the printing press has made knowledge easily available to the masses; television producers have learned to disdain the "talking head," and computers offer new opportunities for interactive learning, the talking head continues to reign supreme in most forms of education. So far, "teaching as telling" has withstood the test of time. But the times they are a changing.

In fact, they are changing so fast that knowledge becomes obsolete at a rate unprecedented in human history. Whereas it was once possible for one generation to pass along to the next generation whatever it needed to know to get along in the world, today's world changes faster than the generations and individuals must live in several different worlds during their lifetimes. Margaret Mead once remarked that the world in which we are born is not the world in which we will live, nor is that the world in which we will die. I was born into a world without mass air travel, credit cards, frozen foods, or computers--all

Prepared for the Annual Conference of the Mountain Plains Adult Education Association, Albuquerque, New Mexico, April 10, 1986.

elements of the modern world which are so commonplace as to be considered, by ^{most people} ~~me at least~~, absolutely essential, ~~for this trip~~ ^{re} ~~from Boston to Albuquerque.~~ My parents were born into a world without automobiles or super highways--that is to say a world without mass transportation. In addition, there were no radios, no television and no national news magazines, in short no mass communication. That world, concerned with purely local matters, is simply incomprehensible to our world of jet travel and instant world-wide communication.

Yet we in education are teaching as we have always taught. We are teaching different things, of course, but teaching methods is one of the few things in life that has undergone no major transformation in the past fifty years, let alone in thousands of years before that. That is really rather incredible, or so it seemed to fifteen scholars from around the world ^{who} that gathered at Northern Illinois University two weeks ago to participate in an International Conference on Learning How to Learn.

Foolishly, it now seems to me, I agreed to bring to you some nuggets of my learning from that Conference. I say foolishly because it takes longer than two weeks for learning to make its way from a jumble of stimulating ideas into a coherent speech, and foolishly because it is an enormously difficult task to distill from three days of talk a few concepts that can be called outcomes of a "think tank." Indeed, one of the presumed advantages of a think tank is that its purpose is to explore ideas rather than to arrive at ^{conclusions.} ~~outcomes.~~

Perhaps, however, I can remain at least partially true

They bases and your program committee by incorporating some of
to my commitment to the ideas from the Learning How to Learn Conference into the observations that I would like to make about the future of adult education.

The distinguished assemblage gathered together by Bob Smith, Professor of Adult Education at Northern Illinois University, consisted of fifteen people who have done research and written on lifelong learning and cognitive processes. They came from Australia, Germany, Sweden, Scotland, Canada, and of course, the United States. The concern of the convenors of the Conference was how to prepare children and adults to live in a world in which change has become the constant. If I were to try to put in a nutshell the challenge of change to educators, it would go something like this: What people know when they ^{complete formal} ~~graduate from~~ high school ^{in 9} ~~or college~~ is not nearly as important as what they are capable of learning. No education, no matter how brilliantly conceived and delivered, will last a lifetime.

That not-so-simple fact of our times has two ramifications: one is that people will have to continue to learn throughout their lives--to become lifelong learners. The second is that the storage of information in the human mind is a futile activity that must be replaced by the development of active minds that can transform new information into knowledge. The essence of the Learning How to Learn concept is that learning must be regarded as a process rather than a product. Another way to put it is that learning is an active verb rather than a noun. In early novels, we used to see the phrase "he was a man of great learning"--suggesting that he had a lot of information in his head which could be disseminated at will--a product, if you will,

that could be measured, packaged, and disbursed to those who might consume it. Today, a computer fills that definition better than any human being--no matter how learned. What we might say today about people whose learning we admire is that they have receptive and active minds that make meaning of the world that surrounds them. Learning is not a product to be stored but an on-going process.

How do we teach people how to engage in the lifelong process of learning was the question to which these international scholars addressed themselves. I hope that you will not be disappointed to learn that in three days of intense discussion, the conferees failed to find an answer to that question. But we did identify some essential concepts, and we did chart some directions and new ways to approach the topic of designing education for a rapidly changing society.

Adult educators are almost certainly more in tune with the concept of lifelong learning than educators within the establishment of schools and colleges. You are convinced, I assume, of what I shall call the five P's of adult learning--that learning is possible, profitable, pleasant, purposeful, and above all a continuing process for ~~A's~~ *adults*.

Yet most teachers teach as they were taught. The majority of teachers today, whether in elementary schools, liberal arts colleges, research universities, or adult education, dispense knowledge as though it were a product. Even more disturbing is the trend of the current school reform movement which purports to measure how much knowledge has been accumulated in school and to use that product as a measure of the effectiveness

of education.

Lecturing to students has long been decried, yet it is ^{of young--and sometimes older--adults.} the overwhelming method of choice for college teachers. It is estimated that teachers in the average classroom spend about 80% of their time lecturing to students, who are attending to what is being said only about half of the time (Pollio, 1984). Added to the evidence of rather poor attention in the first place is the finding that the curve for forgetting course content is fairly steep. A generous estimate is that students forget 50% of the content within a few months (Brethower, 1977); a more devastating finding comes from a study that concluded that even under the most favorable conditions, "students carry away in their heads and in their notebooks not more than 42% of the lecture content" (McLeisch, 1968, p.9). Those were the results when students were told that they would be tested immediately following the lecture; they were permitted to use their notes; and they were given a prepared summary of the lecture. The test for immediate understanding was bad enough, but when students were tested a week later, without the use of their notes, they could recall only 17% of the lecture material.

The cynic might say that perhaps it is just as well that such information is quickly forgotten. Think of the tragic consequences for those who must live in today's world with a headful of yesterday's fact.⁵

Everyone at the Conference recognized that Learning How to Learn is not a new concept. Indeed, some of the more insightful writing about the process of learning comes from the essays of people who wrote before we were quite so obsessed with the

transmission and packaging of knowledge. Charles Gragg (1940), a professor at the Harvard Business School, wrote one of the older and more eloquent definitions of learning how to learn. Forty-five years ago he wrote that, "No one can learn in any basic sense from another except by subjecting what that other has to offer to a process of creative thinking; that is, unless the learner is actively and imaginatively receptive, he will emerge from the teaching experience with nothing more than a catalogue of facts and other people's notions. Anyone, consequently, who is to teach another must see to it that his pupil listens to him in an attitude of creative receptivity" (p.31).

If then, a lecturer is to have any important impact on students, he or she must see to it that students are actively engaged in working with ideas, throwing them into fresh combinations, relating them to experience and to their past knowledge. No teacher can take an idea or a concept, or even a skill and "place it intact and usable in the mind of another" (Gragg, 1940, p.32). Learners must create their own knowledge; no amount of listening and remembering will produce an educated person. That, in essence is ^uthat Learning How to Learn is all about. The question for educators at any level is how can we motivate students to make the necessary exertion to become actively involved in their own education. ~~That challenge has been set forth clearly in the recent NIE reform report addressed to traditional colleges, appropriately entitled Involvement in Learning (1984).~~

As important as that question is to the future of education in our society, improving instruction in traditional classrooms is not the only, perhaps not even the most important route

to developing an educated populace. Conceptually, the Learning How to Learn Conference recognized four other domains in which learning takes place. For want of a better name, "Open Systems" have been coming into much greater prominence with the growing awareness on the part of traditional educators that new forms of academic education must be devised for the learning society. In contrast to traditional colleges and universities, open colleges emphasize the importance of involving learners, not only in the process of active learning, but in the definition of the curriculum--not only in how to learn but in what to learn, and where and when to learn it. Contract learning, the use of mentors, the preparation of a portfolio of past learning, self-assessment, and goal setting are some of the terms used to distinguish college programs especially designed for adults from those of the more traditional top-down, front loaded academic programs that have prevailed in traditional colleges. Learning How to Learn is an obvious goal in colleges such as Empire State and Metropolitan State University where the emphasis is on developing an individualized program of study that is especially suited to the backgrounds and goals of adult learners.

The third category of learning identified in the Learning How to Learn Conference was labeled "Socially Negotiated Learning." Some might call it "Collaborative Learning," wherein two or more learners get together to negotiate with one another what they wish to learn, how and when and where, and possibly even why. There is ^{no} external authority to say whether such learning is important or even what the standards are for achievement. Those evaluations are made by learners themselves, and

they are negotiated with other members of the learning group. Socially Negotiated Learning will be functional as long as--and no longer than--it serves the needs and satisfactions of the members of the learning group.

A fourth category was called "Personal Learning." As the name suggests, this is the type of learning that is used everyday by adults to satisfy themselves. It is subjective, idiosyncratic, arbitrary, and most important of all self-satisfying. The curriculum, the methods for learning, the time, the place, the goals to be achieved, and the satisfactions to be derived are established by the learner. Learning How to Learn when the learner is curriculum builder, instructor, evaluator, and student, is a complex task not recommended for the faint of heart, but nevertheless undertaken by almost all adults consistently and constantly throughout their lives.

Finally, conferees agreed that there may be a fifth type of learning which some called "Alternative Learning," meaning alternative to the rational, linear learning that characterizes what most of us think of as organized systematic learning. Others might call it "transcendental" or "transpersonal" learning. In contrast to self-directed learning, which implies both direction and control, transcendental learning would involve opening one's self to insights and experiences that are derived from a receptivity to non-rational unsystematic experiences. One of the punsters of the Conference observed that the appropriate metaphor for transcendental learning would be "putting the heart before the course."

These five domains of learning--formal, open systems,

collaborative, personal, and transcendental--make up what is known as the Learning Society. In using the term Learning Society, I mean to imply that learning is pervasive throughout the society. That occurs when a majority of organizations are offering learning opportunities and a majority of people are engaged in some form of active learning.

This is characteristic of our society as we approach the 21st Century because knowledge has become power on the new frontier ~~of the Learning Society~~--for individuals, organizations, and society as a whole. From the ancient occupations of agriculture and fishing to the futuristic "high tech" occupations, workers need to be better educated than ever before. Moreover, the continued expansion of education to previously unserved segments of the population is inevitable. Everyone is going to need more education--women as well as men, old as well as young, rural as well as urban or suburban, poor as well as rich, handicapped as well as able-bodied, and the hard-to-teach as well as the easy-to-teach. And education is increasingly important because there are simply more things to learn--appreciations to enrich life, knowledge to enhance personal growth, and skills to improve performance.

More education for more people for more years of their lives would seem to make education a growth industry. The literature and gloomy prognostications of formal education notwithstanding, 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 grow-

ing 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 some danger that educators today are consumed by attention^{to} "running the college" rather than ~~in~~₁ planning for the future educational needs of society.

If we looked to the broad future of education in our society, 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 education that raises questions no one ever thought to ask before. For how long is society responsible for the education of its citizens? In the past, that decision was made through increments added to levels of public schooling. As soon as most people completed eight years of grade school, high schools were added for those who wished to continue, and when most people completed high school, an extensive system of low-cost open door community colleges was added. But education is not being added in increments anymore. Suddenly, we are looking at forty or fifty years of additional educational activity, and the question changes from for how long should education be the responsibility of the state to who pays for what for whom? Similarly, individuals are looking at new patterns of learning. The tilt is already underway--from four years of full-time study on a college campus to forty years of part-time study in a great variety of settings. A study recently

completed in California revealed that 42 percent of the adults in that state had participated in at least one course, class, or other organized learning activity during the previous year. Half of the instruction was provided by colleges and universities, with the remainder provided by a wide array of schools, associations, business, and community organizations (California Postsecondary Education Commission, 1982).

The pattern of lifelong learning is so different from that for traditional front-loaded education that it should change the way schools and colleges prepare upcoming generations for their futures as lifelong learners, and it should change the way society plans for education.

For traditional education
Let us look first at some of the general issues raised by changing student constituencies. Some of the questions are conceptual. For example, if students change, should the educational institutions that serve them change? Is such change to be considered "responsiveness" or merely "consumerism?" If the latter, is giving students--or taxpayers, parents, legislators, employers--what they want necessarily bad, and in any case, in these times of competitive struggle for funds and students, is it realistic to be less than maximally responsive? Can we--should we--meet the demands of the marketplace, or is there some unchanging "standard" of education that must be protected?

A few people in our society are clear in their own minds that education must stand firm in the protection of traditional values, while others are equally convinced that meeting the new clientele wherever they are is paramount. Most of us, however, want to have our cake and eat it too. We want education to do

for the new populations what it has done for the old. Presumably, that means maintaining recognized, or at least recognizable, standards while responding to the special needs of the new populations. Easy to say, but not very easy to do.

The second set of questions surrounding the education of new populations is conceptually easier--maybe--but implementation is difficult. Those are the practical questions concerning the creation of new programs and services and the preparation of teachers and faculty to deal with new kinds of students, all in times of severe financial stress. Some of the new students lack even the most basic academic skills; some have little understanding or appreciation of the intrinsic values of education; some are older than their teachers and more experienced in the ways of the world and in the application of knowledge to specific careers. Difficult at it is, responding to the needs of one constituency at a time could be considered a luxury compared with the reality of responding to the incredible diversity introduced by the impact of all these new constituencies with their array of different needs. Teachers in many high schools and open admissions colleges, for example, are now trying to teach students ranging in reading skills from the fourth to the sixteenth grade levels. As Gertrude Stein put it in a somewhat different context, "There's no there there." Where has the average student gone? Where is that reassuring hump in the normal curve that suggested that the majority of students are average and can be reached through gearing the group to the needs of the fiftieth percentile? Our system of education is based pedagogically and financially on the premise that group instruction is effective

and efficient. If that premise turns out to be suspect, then an educational system based on classrooms, semesters, and a fairly narrow range of teaching styles is facing major renovation.

It won't be easy to resolve either the conceptual questions or the implementation questions regarding education's response to the new constituencies. However, clarifying the alternatives and marshalling the leadership to find our direction through these questions is, I suggest, the major task for education in the 1980s. What has happened, I think, is that while ^{formal} ~~higher~~ education was getting itself together to look at the demographics of the birth rate and the implications for ^{student} ~~college~~ enrollments, a whole new world was growing outside of the formal establishment.

That world is made up of a vast array of diverse providers of adult education who have limited communication with one another. Thus while trainers in industry read about the revolution in "human resource development," they remain generally unaware of the so-called nontraditional movement in higher education. While librarians talk and write about their own obligation to serve and counsel adults as learners, they write and talk about those concerns in their own journals and professional meetings which do not reach community college educators who are planning among themselves how to serve their burgeoning populations of adult part-time learners. What has happened, in short, is that adults have brought all of the providers of education together and exposed an ongoing Learning Society that was not fully apparent to us as individual providers. So far, few people in or out of education, have looked across providers at the new

shape of the Learning Society. For that reason, I concluded that one of the most useful things I could do in the next ^{Ten} fifteen minutes or so would be to pull together some observations about some of the things that are taking place in the Learning Society. My basic thesis ^{is} that the very presence of adults on the scene as lifelong learners is changing the role of education in the society and that planning for adult learners means thinking about new roles, new missions, and new relationships, as well as thinking about the needs and interests of adult learners.

My first observation is that formal education no longer enjoys a monopoly on education. In yesteryear when college students were typically adolescents whose primary occupation was going to school, if they were engaged in education at all, it was full-time at an institution of postsecondary education. 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. 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 education 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. It is estimated that 3000 different providers conduct some 40,000 public business seminars each year. One fact of the Learning Society is that society's traditionally sanctioned agencies for education face unaccustomed competition from other providers of education in the society.

at changing demographics
In these times ~~when most colleges are beating the bushes~~
~~for more students,~~ there is a tendency to feel that ~~these other~~ *educational*
core another, providers are in competition with ~~colleges~~. There is good reason to think, however, that there is a hierarchy of threat in educational opportunities and that adults will enter the Learning Society at the threat level that is tolerable for them. (See Cross, 1981, Chapter 6). We know, for example, that adults who build self-confidence as learners by taking a televised course at home may soon venture onto the campus to try the on-campus competition. Similarly many employees, introduced to classes on the familiar turf of the workplace, may build enough confidence and interest to venture out on their own to off-campus centers and then to classes on campus.

Those of us who work in the educational establishment

~~Higher education~~ should, I believe, encourage and help build a wide variety of low-threat entry-level learning opportunities. The so-called nontraditional forms of education, far from competing with traditional education, are engaged in the critically important business of making education convenient and attractive, and in some cases just downright possible, for many adults, ~~who are potential college students~~. Whether the new entry-level opportunities are offered by college divisions, such as extension or community education, or by other providers such as television or employers, there is every reason for higher education to take the broad view in developing the Learning Society. Getting more adults introduced to the satisfactions of lifelong learning is of benefit to everyone concerned. It is a plus for adult learners because it is the essential route to upward mobility and necessary even to keeping abreast of the fast pace of change. It is advantageous to society because the wheels of change and progress are fueled largely by adults learning new ways to accomplish society's work. Finally, higher education itself stands to gain from the fullest possible blooming of the Learning Society because once people have been introduced to the satisfactions of adult learning, they are quite likely to seek new opportunities and to move to ever more advanced and sophisticated levels of learning.

This analysis, plus ~~the~~ past experience of the decline of the railroads because they saw themselves as railroads and not as part of the larger transportation industry, should suggest to higher education that the development of the Learning Society is a long-term investment that is every bit as important as the

short-term concerns~~X~~ about running the college.

My second observation is related to my first. It is 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 System 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, museums, labor unions, ^{adult schools} or professional associations.

A related blurring of education^{al} functions occurs in the distinction between credit and non-credit learning. Within public 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. Within commuting distance of my home near Boston 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 till 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.~~ The roles of the various educational providers in the Learning Society are far from clear, and blurring of functions rather than distinctiveness seems to be the trend.

My third observation is 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 the unreal world referred to by Wharton (1981) as the "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 ~~inhabit~~ers of education. Higher education today 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.

My final observation is 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.

In 1950, only 17 percent of the jobs in America involved the processing of information; today more than half of all jobs demand information processing skills. No wonder that corporate education is the fastest growing educational enterprise in the nation. But most educators remain relatively unaware of the tremendous growth of education beyond their walls. Ernest Lynton (1982B) observes that,

It is astonishing how little this profound change in the nature and purpose of continuing education has been perceived even--or perhaps especially--by the most fervent advocates of 'lifelong learning' and the 'Learning Society.' Generally, adult education is still viewed as a private and voluntary activity benefitting the individual through personal enrichment or the potential for upward mobility. There exists as yet no widespread recognition that continuing education has become essential for job maintenance, needed to insure collective productivity and economic return. As such it is now a matter of concern to the employer and indeed an issue of public policy. (p.3)

None of this is to deny the importance of continuous learning to the individual. One of the things that we know for sure from all of the research on adult learning is that the more formal education people have the more they will demand.

Lifelong learning is essential not only for business and individual growth, but for our collective growth and development as a society. The Carnegie Foundation for the Advancement of Teaching has called for attention to civic learning as one of higher education's most essential goals (Boyer and Hechinger, 1981, p.47). Their research led them to conclude that,

"As a nation, we are becoming civically illiterate. Unless we find better ways to educate ourselves as citizens," they claim, "we run the risk of drifting unwittingly into a new kind of Dark Age--

a time when small cadres of specialists will control knowledge and thus control the decision-making process. These high priests of technology will understand, or claim to understand, the complicated issues, telling us what we should believe and how we should act. In this new age of growing confusion, citizens would make critical decisions, not on the basis of what they know, but on the basis of blind faith in one or another set of professed experts."

The report of the Carnegie Foundation goes on to observe that "education for citizenship must become a lifelong process"

(p.48). Thus ~~Proposition Four asserts that~~ lifelong education is a necessity for individual, corporate, and social progress in a world that changes many times in the span of a single human life.

These four trends taken together will, I believe, change profoundly the role of ~~higher~~ education in the society. ~~The~~ *My* ~~essence of the~~ conclusion is that adult education is more essential than ever before, but ~~institutions of higher education per se~~ are less important. At least they will decline in relative importance unless we can begin to deal more adequately with the realities of the external world.

You in continuing higher education are the closest thing we have to a bridge between the sheltered environment of the college campus and the emerging world of the Learning Society. You are in a position to help your institutions and your communities come together for a decade of challenge in the 1980s.

4/3/86