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VISIONS AND PREDICTIONS FOR THE FUTURE OF HIGHER EDUCATION

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I would like to talk about the future today--not an unusual topic of discussion in these times when the future seems so dazzling on the one hand and so frightening on the other. One futurist labels our era of change and questioning the "Time of Parenthesis." We seem bracketed off from both the past and the future, says John Naisbitt (1982, p.249).

Perhaps that is why there are so many conflicting books and theories about the future right now. The variety of predictions and speculations that lie in the parentheses plunge us into depths of despair upon reading the catastrophic predictions of the Club of Rome written about a decade ago (Meadows, et al., 1972) and then raise us to heights of hope as we ponder today's optimistic visions of what the marvels of science and technology will do to fulfill human potential in the 21st Century.

Whether one finds futures research exciting or frustrating depends in part, I guess, on your tolerance for ambiguity, and in part on whether the current crop of futurists supports

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your own proclivities for optimism or pessimism. The 1970s seemed to breed pessimists; the 1980s is clearly hospitable to the optimists--which shows how quickly the game of predicting the future can change.

The methodologies of the popular futurists differ considerably, and it seems unlikely that any particular method has the corner on truth. The Club of Rome, with its method of scientific extrapolation about the limits to growth, proved dramatically wrong--or so it appears from today's perspective. John Naisbitt, author of the best-selling book on Megatrends (1982), contends that the best way to predict social trends is to read local newspapers. America is a bottom-up society, he says, and new trends begin locally and then combine to produce megatrends. Thus he puts together his predictions by monitoring six thousand local newspapers each month.

Happily ignoring that bit of wisdom about the best way to get at the truth of the future, US News and World Report marked their golden anniversary last year by starting from the top down. For their special issue on "What the Next Fifty Years Will Bring," they asked the experts for their predictions. Presumably, leaders and researchers who are at the cutting edge of their specialties are better able than the rest of us to know what is possible. Whether they know what the rest of us will accept is another matter. More than a few glorious new possible worlds have foundered on the stubbornness of the man

and woman in the street.

Alvin Toffler (1980), another of today's well known futurists, is convinced that the way to predict the future is to engage in "large scale synthesis," to which he adds a spritely dollop of imagination and speculation.

This great variety of methods among professional futurists has the advantage of giving us amateur prophets confidence that one method is as credible as another as long as we don't look back to see how our predictions fared. I am reminded of the old Trotzkyite who said of his hero, "Proof of Trotzky's farsightedness lies in the fact that none of his predictions have come true yet." If my predictions today fail to come true, it is probably because I am so farsighted.

The future is open-ended; there are no limits--which is fine for the future, but a speech without limits is not a good way to end your lunch. Thus I am going to set some limits for myself.

First, I am going to focus my attention on the implications of the future for higher education. There are plenty of books on the future of the world--and beyond--and while these visions furnish grist for my mill, I am not going to talk about the future writ large. Neither am I going to talk about the future writ small. Although I still regard Student Personnel

Things being as they are because of
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Administration as my first professional home, I am also humbly aware that I cannot return home after twenty years with quite the same understanding of the profession that I had when I was a practicing Dean of Students, creating the future, as it were, by my day-to-day activities. I, for one, am intrigued with John Naisbitt's hypothesis of trend building from the bottom up. As I was preparing this speech, I found myself speculating on what we would find out about trends in student and campus behaviors if we monitored all of your local campus newspapers. What are the grass root trends occurring on campuses today that will swell into student personnel megatrends in the future? Collectively, you as members of NASPA may know the answer to that question, but individually you probably don't have a handle on it, and neither do I. So I am going to opt for the middle road of looking at societal trends for their application to higher education, which is what I know best.

The second and most difficult condition that I want to place on my speculations about the future is to focus attention on what Ben Bloom has called "Alterable Variables" (Bloom, 1980). Alterable Variables are variables that we as educators can do something about. Most of the research and literature of student personnel administration consists of

describing students or campuses in terms of unalterable variables. The research on student characteristics provides a good example. We are most likely to do research, write about, and talk about age, gender, ethnicity, socio-economic status, and other characteristics of students that we cannot change. Making demographic projections -- nationally, regionally, and locally--has become something of a passion in higher education today. It dominates every study we conduct and every plan we make. But there is absolutely nothing that we as educators can do about the birth rate eighteen years ago. We can and must respond to it, but we cannot change it. The variables I want to bring into the picture today are the alterable variables where educators can act rather than simply react.

My third self-imposed limit is that I am going to concentrate on the foreseeable future. Nothing about the future, of course, is really foreseeable. Things that we thought we foresaw have a way of not happening, but we can probably see the next fifteen years with somewhat greater clarity than the next fifty. Thus I shall be talking primarily about things that are expected to happen between now and the end of this century.

Every generation has experienced change, of course, but futurists claim that we live at the confluence

of more transitions than any of our ancestors. We have been told to expect Future Shock, (Toffler, 1970), "the restructuring of America" (Naisbitt, 1982) and a "macrotransition" (Cleveland, 1980). Because of the nature of today's change, I believe that education, which has remained relatively impervious to change for centuries, is ^{in the process of} in for profound transformation.

Three major streams of change are joining forces to pose challenges to education that are quite unlike anything we have seen before. First, the information society is changing the goal of education. Second, technology is changing the form and delivery of education, and third, the emphasis on the development of human capital is changing the participants and the providers of lifelong learning. Ironically, two of these three major trends, information and human development, have always been the major business of education, and the third, technology, is especially visible today as computers, on campus and off, challenge the function of traditional classrooms and teachers. Education is, of necessity, cast into the limelight of public attention because the future is dependent upon it.

I suspect that the reason that the National Report on Education attracted such unexpected reaction is only in part because it provided a focal point for people's dissatisfaction with the schools. The real significance of the report lies in its title, A Nation at Risk, and in its basic message

that the future of America (and ultimately the world) rests on the quality of education.

There is high agreement among futurists that the economy is entering a dramatic new era in which knowledge is the strategic resource that will make or break an enterprise. According to Peter Drucker, "knowledge has already become the key to productivity, competitive strength, and economic achievement (quoted in Naisbitt, 1982, p.17).

Whereas land was the capital asset of the Agricultural Revolution and the dollars to mechanize production was the key to success in the Industrial Revolution, knowledge and the people who create and use it are the strategic resources of the Information Society. Rosabeth Kanter (1983) observes that people tend to count for more in today's corporations because it is people "who come up with new ideas, who develop creative responses, and who push for change before opportunities disappear...." "Innovations," she says, "are designed, not by machines, but by people" (p.18). Knowledge, and the people who generate and use it has become the driving force of our economy.

Recent changes in the constituency of the labor force reflect this economic reality. In 1950, only 17 percent of the jobs in the United States involved the processing of information; today more than 60 percent of the labor force work with information.

Although most student personnel workers think of themselves as people-oriented, financial aid officers, career counselors, and other advisers and counselors are actually spending most of their time getting and giving information.

The revolutionary aspect of an economy based on knowledge is that "knowledge is not subject to the law of conservation: It can be created, it can be destroyed, and most important-- it is synergetic--that is, the whole is usually greater than the sum of the parts" (Naisbitt, 1982, p.16). Information is not only a renewable resource, it is self-expanding. The more people there are in information jobs, the more information they create and distribute.

Academics are right in the middle of the information explosion; no teacher could possibly miss it. Yet, classroom teaching looks much as it did in the 14th Century. The formula is simple. Professors tell students what they know. Clearly, that formula is no longer adequate. Professors cannot keep up with the information explosion themselves. Between six thousand and seven thousand scientific articles are written each day, and scientific and technical information doubles every five and one-half years (Naisbitt, 1982, p.24).

Obviously, the learning of content cannot be the goal of education. Content is quickly outdated, and the information age cannot tolerate the time lags between the generation of

knowledge and its ultimate use. The solution for education is not to find faster ways to communicate--although the communication gap has certainly been reduced by television, electronic mail, and other marvels of the communication age. The solution for education lies in the development of students who are capable of continuing to learn throughout their lives.

Although the phrase "lifelong learning" rolls trippingly off the tongue, the implications are profound for educators. Lifelong learners need both the cognitive skills that constitute the basic tools for learning, and the motivation and attitudes that lead them to seek learning opportunities and the self-confidence and self-direction to accept the challenge of exploring the unfamiliar and unknown. Lifelong learning means far more than providing educational opportunities for adults; it means preparing young people for their futures as lifelong learners. That means educating for intellectual development, of course, but equally important, it means instilling values and attitudes that make personal growth and development a lifelong quest.

Statistically and of necessity, people in the professions are the most active lifelong learners, and it is not surprising that professional schools and associations are leading in the implementation of lifelong learning. The Panel established by the Association of American Medical Colleges has just issued a

powerful analysis of the educational needs of the medical profession. Medical schools, they say, should prepare students "to learn throughout their professional lives rather than simply to master current information and techniques....Active, independent, self-directed learning requires, among other qualities, the ability to identify, formulate, and solve problems; to grasp and use basic concepts and principles; and to gather and assess data rigorously and critically" (Chronicle of Higher Education, September 26, 1984).

These demands call for radical change in classroom procedures. Memory becomes relatively unimportant. The Medical panel observes that "passive" medical education that emphasizes memorization and recall must give way to an emphasis on independent learning and critical thinking (Chronicle of Higher Education, September 26, 1984, p.1). Let's face it, when it comes to storing and retrieving information, the human brain has been outclassed by the computer.

The skill that is rising in importance as knowledge explodes about us is the higher order skill of synthesis. As John Naisbitt (1982, p.24) puts it "Running out of [information] is not a problem, but drowning in it is." Most students are drowning in information today, and few are developing the higher-order cognitive skill of synthesis. The excitement of my doctoral students, who find that the library will run an ERIC computer search on a topic of their choosing, soon turns to dismay when the computer cranks out three hundred abstracts of

articles written on their topic in the past two years. ♦

Scientists complain that it takes less time to do an experiment than to find out if it has already been done (Naisbitt, 1982, p.24). In the fields of special interest to members of NASPA, there is such a thing as having too much information about careers, colleges, or other critical life choices. Students need help in sorting out the information--and often counselors do too. If we are to find positive creative solutions to complex problems, we are going to need people who can select information from a wide variety of sources and put it together to create new knowledge.

While I would contend that current methods of education are generally ill-designed for preparing students to cope with the information explosion, there are some positive signs on the horizon. The renewed emphasis on the development of communication skills, oral as well as written, is certainly a step in the right direction. Writing, if it is done well, requires students to go beyond memory and content mastery to select information and put it together to make a point or communicate an idea. Another positive sign is the renewed emphasis on general education. The explosion of knowledge in all of the academic disciplines is creating specialists at an unprecedented rate. The information society will have to find

some balance between the specialist and the generalist. It has been said that the specialist is one who learns more and more about less and less until he eventually knows everything about nothing, while the generalist is one who learns less and less about more and more until he eventually knows nothing about everything. Fortunately, with the widespread acceptance of lifelong learning, we no longer feel compelled to pump students full of information before they graduate.

Attitudes, however, are just as important as cognitive skills in the development of lifelong learners. Research on adult learners shows clearly that adults who are most active in learning activities are those who enjoy learning and feel confident about themselves as learners (Cross, 1981). The more education adults have, the more they want. A college graduate is seven times as likely to be participating in adult education as a high school dropout, and because adult learning is largely voluntary, the gap between the well-educated and the poorly-educated is actually growing as the opportunities for adult learning increase.

As we move into the learning society, adults who cannot or do not participate in lifelong learning are going to be one of our greatest social and economic problems. Job changes, career changes, and constant learning on the job, will be part of the everyday life of adults in the 21st Century. Those who have learned to dislike learning are going to constitute a new

class of educationally disadvantaged citizens. There used to be an escape for students who did not like school. Adulthood meant freedom and independence and an escape from the threat of failure that academic learning induced. That escape hatch is closed in the learning society, and I worry that schools and colleges have not caught up with their responsibility to develop learning satisfactions as well as learning skills.

So far, I have talked mostly about the importance of education for individuals living in the Information Age. Now I want to turn to the importance of the development of human resources for future economic and social progress of the society. There is a common theme running through many of the best-selling books describing highly-successful corporations. Peters and Waterman (1982), authors of In Search of Excellence, call it "productivity thru people" (p. xii); Rosabeth Kanter (1983) says that the difference between stagnation and innovation lies in the development and use of people.

More theoretically, these ideas about economic progress through human resource development come from human capital theory. Basically, human capital theorists contend that the acquired abilities of people--their education, experience, and health--determine economic progress in poor countries as well as in rich. Human capitalists reject the widespread contention that limitations of space, energy, cropland, and other physical

properties impose constraints on human betterment, arguing that a nation's progress is directly related to the education of the populace (Schultz, 1980). Note that the operative words in human capital theory are the "acquired abilities" of people. Acquired abilities are "alterable variables," and they are the variables of human development.

In the past, the development of human potential was considered the responsibility of schools and colleges. By and large, the life plan was pretty clear; children learned, adults produced, and when they reached the magic age of sixty-five they retired to face what was thought to be their "declining years" in rest and leisure.

The information age has changed all that with such sudden force that educators have not yet grasped the fact that the learning society is not the heaven-sent answer to the decline in the number of eighteen-year-olds in the population. Adults are not going to college to help colleges survive, nor is industry demanding and paying for further education of their employees to help colleges survive, nor has the Elder-hostel enrollment exploded by 400 percent over the past decade to help colleges utilize their facilities during the summer months. Colleges are not creating the learning society by satisfying their needs for new kinds of students; rather they are responding to the broader needs of society. What is fortuitous, perhaps, is that the demographic distress has created maximum responsiveness on the part of colleges. Were it not for that, higher education might be further

behind than it is in providing for the needs of the learning society. As it is, organizations whose business is something other than education are rising to meet the needs of the learning society, and as a result we have become a nation of multiple providers of educational services.

"Society, like nature, tends to fill a vacuum. If existing institutions do not meet an important social need, other mechanisms are usually created to fill the gap" (Lynton, 1984, p.xii). Industry began in earnest to fill the lifelong learning vacuum in the mid-1970s. Today, industry spends between \$20 and \$40 billion per year on employee education and training, not counting indirect costs or employee time. The low side of that estimate is just about equal to the \$23 billion appropriated by all fifty states for higher education in 1981-82 (Lynton, 1984). But it is not just dollars that indicate the extent of corporate involvement in education. Within the last decade, industry has become involved in granting academic degrees, offering more than 2000 courses redeemable for college credit, building residential campuses, developing the "whole person" through education (See Cross, 1984), and creating a full-time "faculty" of some 213,000 teachers, with an additional 786,000 engaged in training on a part-time basis (Zemke, 1983, p.8). There is no question that education and training has become big business for business. If human beings are the capital resource of the economy, it makes good sense to invest in education and training.

Professional associations too, are beginning to provide extensive educational services to medical personnel, accountants and business managers, lawyers, and a host of others. Much of this expanding professional empire is seen by some to be providing the same type of education that universities can and should be providing (Stern, 1979). Another provider of educational services that is beginning to be highly visible consists of private vendors who contract with employers, and sometimes with educational institutions to provide training, materials, and other educational services. Frequently these vendors are faculty members, presumably employed full-time by a college or university, who are conducting lucrative educational businesses on the side.

Recently there has been a scramble among all kinds of institutions, but especially among community colleges to forge cooperative agreements with other providers. Indeed there is good evidence that state policy is strongly encouraging partnerships among the multiple providers of the learning society (Cross and McCartan, 1984). In the 1983 legislative sessions, 43 percent of the states considered legislative proposals addressing the theme of business/postsecondary linkages for purposes of economic development (Martorana and Garland, 1984).

Cooperation as well as competition will flourish as the

number of providers of educational services expands, but for the foreseeable future, the learning society will consist of multiple providers of educational services, including employers, labor unions, professional associations, community agencies, museums, libraries, the military services, and private entrepreneurs. One of the tasks of higher education in the next decade will be to define its distinctive role as one of many agencies providing educational services.

Unfortunately, educational institutions have not assumed the leadership role in human development that we might expect. I find it strange indeed to read the literature of higher education and find it heavily concerned with management, marketing, and efficient business practices, and to read the literature of business management and find it concerned about people and "human resource development."

There is no denying that colleges are complex social organizations and that administrators need to be skillful managers. But it seems to me that educators have lost perspective under the unrelenting pressures of declining resources and have mistaken the means of management for the ends of education.

That mistake has happened before when huge industries were faced with declining demand for their services.

Let me give two examples. In his book, The Decline and Fall of the American Automobile Industry, Brock Yates (1983, p.89) tells a story about the shift in emphasis from engineering to management in the automobile industry. One of the old-time engineers who cared passionately about cars was asked to give a recently-hired manager a tour of the manufacturing operation, and the engineer remembers the event this way. "We got to the engine plant and as we were walking along, (the new manager) nudged me and said, 'Excuse me, I wonder if you'd explain how one of these things works.' The thing he wanted me to explain was an engine! He had just been hired as an engineer by the world's largest automobile company and he didn't have the vaguest notion about how a four-cycle internal combustion engine worked!"

The parallel between the problems with quality in American autos and the problems with quality in American education are painfully apparent. There are all too many managers in education who don't have the vaguest notion about how that "thing" called the human mind works!

We have a number of efficient managers in higher education today but few leaders who care passionately about education. There is no necessary conflict between good management and strong educational leadership; but higher education is off-balance now, and we will have to right that balance if we hope to enter the learning society in a position of strength.

Look now to what we are doing TQM - CQI - SLI.

The decline of the railroads contains a somewhat different lesson for colleges faced with dramatic change in their external world. The most important factor in the decline of the railroads was the development of other means of transportation--automobiles, bus lines, airplanes, inland water routes, pipelines, etc. (Stover, 1970; Levinson, 1972). In the midst of dramatic change in the provision of transportation, the railroad operators stuck narrowly to the business of "running the railroad" in the most efficient manner they could manage. As the railroads were confronted with the demonstrated advantages of the competition, they turned inward to the management of decline and the defense of their remaining turf in the transportation business.

Once again the parallel to education in the 1980s is painful. The demand for human resource development is so great that educational programs launched by corporations, labor unions, community agencies, professional associations and the like are changing the environment of the educational enterprise while the managers of education stick narrowly to the business of "running the college." What is the role of higher education in the development of human resources?

Let me first say that while I think higher education should take the leadership in the development of human potential for the 21st Century, I don't think higher education can or should do it alone. The boundaries

surrounding who should be doing what are not always easily defined, but progress is being made, and I'd like to spend the rest of my time this noon identifying some areas in which there is a vacuum of leadership. In some of these areas, the vacuum is sucking in providers who don't necessarily want to be there, but who are filling the need until higher education gets itself organized to meet the demands of social and technological change (Branscomb and Gilmore, 1975).

The first vacuum is of special relevance to the personal profession. There is a need to a better balance between education for independence and education for teamwork. Traditional education stresses independence and competition. The world students join upon graduation, however, is moving increasingly toward demanding people who are able to work productively in groups. Business executives report that college graduates are especially poorly prepared to deal with organizational and interpersonal relationships. An astounding 78 percent of the executives of large business firms said that four-year liberal arts colleges are doing a poor job of preparing students for work (Lusterman, 1977, p.62). Most of the education that employers have felt compelled to offer themselves is heavily oriented toward developing skills in supervising people and working in teams (Lynton, 1984).

When campuses were largely residential, the so-called co-curriculum that was the responsibility of the student personnel staff, was expected to help young people develop interpersonal and leadership skills. With today's new majority of part-time commuting students, those experiences have been lost and not replaced.

Interpersonal skills can and should be taught. What used to be the extra-curriculum and then the co-curriculum should now become part of the regular curriculum. At the present time, employers are taking on the teaching of interpersonal skills because the educational system has defaulted. Industry is staking millions of dollars on the premise that teamwork, supervision, leadership and other interpersonal skills can be taught. I believe it. Living in the interdependent world of the 21st Century will require maximum development of interpersonal skills.

Second, higher education needs to work harder at the business of developing the human resources of all people. A better world in the 21st Century is necessarily a more equitable world. The slogan of the United Negro College Fund sums it up: "A mind is a terrible thing to waste." More broadly in the context of my message today, human resources are a terrible thing to waste; we need all the human talent that we can develop. That means special attention to the needs of our rapidly growing minority

populations, to the unfulfilled promise of the elderly, and to the potential contributions of women. These three groups constitute more than 75 percent of the emerging workforce in this country, and it is essential that we develop their talents to the fullest.

A third approach to the question, how can colleges and universities best develop human resources, concerns the phenomenon of lifelong learning. Seventy-five percent of all people who will be working in the year 2000 are already in the labor force. But many of them are working in industries or at jobs that will disappear by the year 2000. Retraining and re-education will become a necessity as we move toward the full development of human resources.

Colleges and universities will have to begin to think of alumni, not as loyal boosters and potential donors, but as permanent students. As the part-time college student becomes the norm rather than the exception, alumni will be less likely to identify with the class of '83, '93, or any other year, and more likely to look to colleges and universities for lifelong learning opportunities. In highly specialized fields, students scattered throughout the world will keep in touch with their professors through computer networks and telecommunications. In less specialized fields, students will adopt the nearest appropriate college and move in and out of college study throughout their lifetimes.

The concept of a permanent student body, has enormous implications for student personnel workers. Career advising and placement become lifelong activities, and personal development continues throughout the lifespan, with some of the most satisfying gains made not at age eighteen, but at age 38, 48, or 58. Student personnel workers of today form the nucleus of the human resource developers of tomorrow. The profession has virtually unlimited potential for growth. It is difficult enough to understand the developmental processes for young people; it is infinitely more difficult to understand the emerging field of adult or lifelong development. When each decade of experience makes people more unique, a group of fifty-year-olds is inevitably more diverse and more in need of individual attention than a group of twenty-year-olds.

Fortunately, the technology of the future will individualize education and services if we use it well. Alvin Toffler (1980) points to the demassification of society that is taking place as we move from a Second Wave Industrial Society into the Third Wave Information Society. Mass production, standardization, and order were the hallmarks of the Second Wave; individualization, customization, and innovation are the hallmarks of the Third Wave.

Given this picture of shifts in the world around us, I am distinctly uncomfortable with the current educational reform movement which places so much emphasis on establishing minimum standards, introducing greater structure, and more external control (See Cross, 1984). It seems to me we are advocating Second Wave educational reform in a Third Wave world. Robert Reich makes these observations about education in his book on The Next American Frontier (1983).

"U.S.education has been modeled on scientific management. Students are sorted, programmed, and controlled in a high volume, standardized production process....Countless efforts are made to measure and quantify educational achievement. Professional administrators start from these measures to devise standard rules and procedures for teachers and students. Success in American education is coming to be measured largely by the degree of order and management control in the classroom" (p.215)...People cannot be trained to participate in flexible-system enterprises when their daily lives are dominated by high volume, standardized institutions" (p.216).

The tone and visions of these statements of the future needs of our society is so different from the current mania for control, order, and standards in the schools as to raise serious questions about whether this particular swing of the

school-reform pendulum will develop the human resources that will be needed for the 21st Century. If the history of educational reform is any guide, the over-regulatory pendulum of the 1980s will swing back to more decentralization and personal responsibility on the part of students, teachers, and counselors before the end of this century.

I hope that those educators within our society who are most concerned about human development will lead in that reform. Student personnel workers have been frustrated in the past in their efforts to focus attention on student development, but I believe that widespread support is emerging now for the development of human resources to enrich the lives of individuals, organizations, and society worldwide.

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