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ABSTRACT

Institutions are created to fill societal roles. As society evolved from a primitive to an agricultural and then to an industrial stage, institutions were created to coordinate specialized functions. Education is the institution intended to provide the intellectual capital and the workforce to drive the economy of a society. The United States is in a transition from an industrial society to a complex scientific and technological society based on communications and information technology. This new society will require more sophisticated intellectual capital and a workforce that is skilled in new ways. These needs will demand the formation of new expanded relationships between postsecondary education and the economy and society as a whole. Between now and the 21st century, education will face profound challenges. Education is the key to the formation of the intellectual capital that is needed to compete in the new global economy and to shape the future of the United States in world affairs. Reports on education indicate that the education industry must be improved at once. The question remains whether the requisite tools, intellectual capital, and will to redesign the education industry are available. (Author/LAL)

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THE LEARNING COMMUNITY OF THE FUTURE

EDUCATION AND TRAINING

IN THE 21st CENTURY

BY

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presented by

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Abstract

Institutions are "of society." That is, they are created to fill a role that society has deemed necessary to its well being. As society evolved from a primitive to an agricultural and then to an industrial stage, numerous distinctive institutions were created to plan and to coordinate specialized functions that could contribute to the quality of life of that society. Education is the institution that is intended to provide the critical mass of intellectual capital and the workforce to drive the economy of a society.

Many nations of the world, particularly the United States, are in the transition from an industrial society to a complex scientific and technological society based on advances in research and development and disseminated rapidly through communications and information technologies. The society we now live in requires a workforce skilled in new ways. The emerging society and its economy will require more sophisticated intellectual capital and a workforce skilled in new ways. In the past, education has seen its relationship to the economy primarily in terms of providing a trained workforce. In the future this focus will continue to be important but not sufficient. New expanded relationships will be required between postsecondary education and the economy and society. Education is inextricably tied to the larger demographic, social, economic, scientific, technological, and political issues of the society of which it is a part. There must be a tighter relationship between education and the broader public problems. Education is the key to intellectual capital formation to compete in the new global economy. Education must also help to shape the future of America in world affairs.

Between now and the 21st century, education will face challenges as profound as those that caused the invention of schools; the creation of colleges, the transformation of nineteenth century small colleges into universities, the evolution of land-grant universities, and the spread of two-year colleges. The reports on education indicate that the education industry must be improved, and improved now. At issue are three fundamental questions: (1) Do we have the tools to redesign and restructure the education industry? (2) Do we have the critical mass of creative intellectual capital? (3) Do we have the will to do it?

Introduction

Institutions are "of society." That is, they are created to fill a role that society has deemed necessary to its well-being. As society evolved from a primitive to an agricultural and then to an industrial stage, numerous distinctive institutions were created to plan and to coordinate specialized functions that could contribute to the quality of life of that society. During the agricultural stage, this nation experienced the growth of elementary schools in rural areas and the development of private colleges for the elite who were destined for the professions of law, medicine, teaching, and ministry.

During the industrial era, this nation experienced major advances in systems for schools, transportation, communications, economics, finance, and research and development. Public high schools and colleges were developed to provide the workforce to run the systems. The numerous distinctive institutions that were created incorporated the underlying principles of the society of which they were a part. At the peak of the industrial society, these underlying principles included the division of labor, the hierarchial structure, and the principles of standardization. Schools, for example, were designed to produce compliant workers who would be comfortable assembling things on a conveyor belt. Students were processed through 8 to 12 years of compulsory education and training. Schools and colleges were designed primarily like broadcast television - education and training services were delivered in uniform packages and in a manner and at a time convenient to the provider. Competencies, skills, attributes, and values acquired in those formative years were expected to last a lifetime.

During the 1940s and 1950s the United States became an agricultural and industrial giant. This nation developed its agricultural and manufacturing capacity to meet virtually all the needs of domestic markets and a large share

of international markets. At one time American products claimed 30 percent of the world markets and 95 percent of domestic markets.

Expand the Capacity

After World War II, this nation expanded its capacity to provide postsecondary education to the returning veterans. Thus, a first concern for postsecondary education was to expand its capacity to provide lower division general education and transfer programs so that veterans could obtain a four-year postsecondary education. Thus, the first definition of access had a focus on the quantitative expansion of four-year programs. Because of advances in science and technology which required a workforce with contemporary skills and higher competency levels, postsecondary education was expanded to include career studies programs.

In addition, this nation began to become more serious about equality of opportunity and how the educational system could help achieve that goal. Many members of American society, however, were on the periphery of the American dream of equality of opportunity in that they were excluded from various forms of education. On July 13, 1946, President Harry S. Truman created the President's Commission on Higher Education. The Truman Commission issued its six volume report on December 11, 1947, under the title Higher Education for American Democracy. The Commission's report called for revolutionizing American higher education by opening its doors to members of lower socioeconomic groups, blacks, women, working adults, immigrants and other segments of society previously denied access to postsecondary education. The goal was to be achieved primarily through a network of two-year colleges.

The national commitment to equality of opportunity admitted groups of persons with deficiencies to postsecondary education that had to be repaired

before they could do college level work. Two-year colleges in particular were asked to offer remedial and developmental work to repair basic skill deficiencies in communications skills, computational skills, and other areas.

Thus, the dual mission for two-year colleges includes quality in general education/transfer and career programs as well as equality of opportunity services in remedial and developmental education.

The need to expand the capacity for education occurred at a time when equality of opportunity resulted in a redistribution of human resources. During the 1940s and 1950s, women could become a teacher, librarian, nurse, secretary or housewife. Most gifted women who wanted to enter the workforce became elementary teachers. Even when they interrupted their professional career to raise a family, they often were substitute teachers and took graduate work so that they were better prepared when they re-entered teaching on a full-time basis. During the 1960s and 1970s, the range of career choices expanded dramatically. Many talented females entered a wider range of occupations.

A similar pattern occurred for Blacks. Most Blacks that were fortunate enough to complete high school and postsecondary education did so in a predominantly Black college, then entered teaching and other professions in the social sciences. Equality of opportunity initially increased the number of Blacks who participated in postsecondary education. It also redistributed these human resources in numerous ways including the shift of talented females and males from teaching to other occupations as well as a shift of outstanding students and professional educators from historically Black colleges and universities to predominantly white institutions. This trend continues today and is having a profound impact on historically Black colleges.

The Emerging Economy

World War II devastated many of the industrialized nations of the world. These nations rebuilt their physical infrastructure with new technology, much of which was produced by U. S. money and research and development. A new level of international competition emerged characterized by WW II technology in the U. S. and post - WW II technology in other industrialized areas. The U. S. lost much of its share of international markets and helped to produce a group of competitors for its domestic markets. Massive dislocations occurred when plants and entire industries moved from one location to another. For example, the textiles industry, the dominance of which the U. S. captured from England during the early industrial society, moved from New England to the South and is now moving from one developing nation to another.

This nation began to realize that the world was undergoing a fundamental restructuring. Just as this nation made the transition from an agricultural era to an industrial era, so too was it making a transition from an industrial era to a complex scientific and technological era based on advances in research and development and disseminated rapidly through communications and information technologies. (Bell, Botkin, Brzezinski, Etzioni, Masuda, Neisbitt, Toffler)

During the industrial era this nation produced more food with fewer people as well as perfected capacity to extract raw materials, assemble products and distribute them to people with needs. "Value added" or profit was accomplished by doing this in an efficient and effective manner via water, road, rail, and air corridors. Today, this is being accomplished, to a great extent through the application of the "just in time" concept that brings together right amounts of raw materials, physical resources, human resources, and fiscal resources to do whatever is needed, whenever and wherever they are needed.

The society we now live in requires a workforce skilled in new ways. Major scientific and technological advances are requiring an increase in the competencies and skills necessary for persons who enter the workforce as well as those persons already employed in it. "Value added" will be accomplished by the ability to access the right information, to use it in creative ways, and to disseminate it to various locations in the world through a variety of communications and information technologies. The emerging technological era will require a workforce more highly trained than the current one--people who are skilled and flexible, constantly innovating, integrating, collaborating, and adding value to new knowledge and applying it quickly to problems in health and human services, to business and industry, to government and the military and to education and training, and to be able to apply the information anywhere in the world.

These macro transitions of the past and the future can be viewed using categories such as society, employment, technology, transmission, competency, and education and using a few descriptors such as those displayed in FIGURE 1:

FIGURE 1 KEY TERMS IN MACRO TRANSITIONS

Society	Agricultural	Industrial	Technical
Employment	Farmer	Worker	Clerk
Technology	Telegraph	Telephone	Television Telecommunications
Transmission	Voice	Data	Video
Competency	Visual Language	Computational	Holistic
Education	Quantity	Equality	Quality

The Challenge

Graubard (1967) stated that by the turn of the 21st century, certain municipalities will be primarily "educational" in the broadest sense, just as certain cities are primarily "textile," "banking," "transportation," and so

forth in today's society. What he suggested is a consortium of ideas and programs that goes beyond the parochial view of "institution." When we get rid of the parochial view of "school" or "college," then we can begin to see a brand new set of relationships between education and the broader public interest and about the future of America in the world. We have the tools to redesign and restructure our education industry. An example is provided that has a focus on quality programs as well as an illustration on equality of opportunity services. These examples are followed by a brief discussion on the critical mass of intellectual capital and the will to restructure the education industry.

Tools to Redesign and Restructure the Industry

The future of any institution, particularly education, rests on the degree to which it meets the needs and wants of the society of which it is a part. As society changes, so must education and training change. The way in which a system or specific institution meets the challenge of being responsive to the needs of society is a function, for the most part, of its commitment to planning. Planning is an ongoing process that includes a review of the past, an analysis of the present and the development of a conceptual framework to help anticipate the future. The label assigned to the current popular technology for doing this task is strategic planning and management. (Groff 1982, 1983, 1986, 1987.)

In order for education to achieve the dual mission priorities of quality and equality, we must develop the will and capacity to think strategically, both unilaterally and collaboratively with other stakeholders, and to improve operational planning. Strategic thinking and operational planning require two distinct modes of thought. Strategic thinking has a focus on what an

organization or group of agencies want to become. Strategic thinking should produce a long-term vision of the future based on an analysis of several alternative scenarios and the specification of a preferred scenario. The long-term vision of the 1990s and the 21st century should be based on an analysis of a broad range of demographic, social, economic, political, technological, and other variables. Operational planning maps out how that vision will be achieved. Operational planning consists of the interpretation of a preferred scenario into a multi-year action plan with a statement of resource requirements. It is an expression of the values and vision of the institution. The multi-year action plan contains detailed objectives to which fiscal year operating dollars are assigned.

Alan Toffler (1980) states that "All education springs from some image of the future." Both the agricultural and industrial eras had an early period of emergence, an advanced period of development, and a post-era decline in terms of the number of people employed in that field. Because this nation is exiting the industrial era and witnessing the emergence of the technical era, we could label the period from 1955 to 1985 the "post industrial society," the period of time from 1985 to 2000 the "early technical society," and the period from 2000 to 2020 the "advanced technical society." Systems could include health and human services, business and industry, government and the military, and education and training. (FIGURE 1) The post-industrial era is history. An institution can analyze demographic, social, economic, scientific, technological, and political data and information for the past thirty years and record the change in institutions and systems. An institution can use this base for creating possible, probable, and preferable scenarios.

At Shelby State Community College this year, the Campus Strategic Planning

Advisory Committee (CSPAC) developed a priority listing of strengths, weaknesses, opportunities, and threats. The strengths and weaknesses were drawn from an audit of the internal environment and the opportunities and threats were drawn from an assessment of the external environment. Shelby State's strengths are a reflection of the dual mission priorities of quality and equality: (1) health and human services programs, (2) business career programs, (3) transfer programs, and (4) remedial and developmental services. Opportunities parallel these strengths. Memphis is the 6th largest distribution center in the United States. Shelby State is located next to one of the world's largest concentrations of health and human services establishments and adjacent to the University of Tennessee Memphis Health Sciences Center. Furthermore, Memphis is a mid-sized city with the full array of urban assets and problems. All of this information is being used to think strategically about the advanced technical society and what "The Learning Community of the Future" might look like in the 21st century. The College's Toward the 21st Century statement will help to carve out a niche for Shelby State in the 1990s. This four page strategic directions statement is helping to add clarity to operational planning at the college.

Many of the macro socio-economic problems are beyond the scope of work of a single institution. Therefore, collaborative strategic thinking must involve a broad range of stakeholders. In Memphis, the chairs of institutional strategic planning committees of public postsecondary and elementary-secondary education have met several times to formulate a plan for collaboration. The chairs of strategic planning committees thought that a strategic directions statement with a common format would be useful to a broad range of persons,

particularly those individuals and offices involved in economic development to retain and upgrade existing industry and to attract new industry.

An example of collaborative strategic thinking is a project involving numerous institutions in Memphis. Dr. James C. Hunt, Chancellor of the University of Tennessee Memphis, created a Task Force on Biomedical Information Resources to explore the role information processing and telecommunications technology should play in the future of the University of Tennessee, Memphis. The Task Force recommended the development of a Memphis Institute for Biomedical Systems and Services. The intent is to create a comprehensive information processing and telecommunications capability which would permit the creation, storage, retrieval, transmission, and reception of audio, data, and video signals to and from virtually anywhere in the world. The implications in terms of research, patient care, education and public service are limitless. Graduates of health care programs would be expected to be able to access information and use it in their patient care plans. Shelby State could deliver a part of any of its inventory of programs practically anywhere in the world, bring foreign students to this area for several semesters of instruction and then provide for their continuing education via satellite. The Memphis Metropolitan Campus Network (MMCN) being established at UT, Memphis, will link together the campuses and teaching hospitals.

Chancellor James C. Hunt is developing another project called the Biomedical Research Zone Technology Innovation Center (TIC). Progress is made through basic research that progresses through stages of development which is demonstrated and then ultimately disseminated in a variety of ways. This research through dissemination continuum applies to all products and services. The BRZ Technology Innovation Center (TIC) would become a facility to showcase

products and services intended to improve the quality of health and life of persons, an opportunity to reduce the lag between basic research and its application. With regard to basic research, the University of Tennessee Memphis has filled seven of fourteen endowed professorships and is attempting to generate seven additional endowed professorships. These twenty-one eminent scholars, coupled with endowed professorships at Memphis State University, will do basic research in a variety of problems to improve the quality of health and life.

The resources at this time include (1) chairs of excellence, (2) the critical mass of human resources, (3) Biomedical Information Systems and Services, and the (4) Memphis Metropolitan Campus Network. It seems only logical that we develop a BRZ collaborative with four major components (1) professional development, (2) curriculum development, (3) career development, and (4) community development. With regard to the professional development component, eminent scholars who are doing basic research in microbiology, rehabilitation, pharmacology, biochemistry, and other areas could share that information with teachers and faculty in the natural sciences and health and human services career programs so that we could understand the implications for curriculum and support programs. Furthermore, academic administrators would need to examine these advances for curriculum development, upgrading existing courses and programs as well as the design and implementation of new programs and alternative delivery systems. The career development component would focus on the impact of advances in science and technology on existing careers as well as newly emerging careers and the competencies and skills of these new jobs. The community development would focus on helping the community become more aware of the evolving BRZ and in assisting entrepreneurs in transforming new

product and service ideas into businesses, possibly through a small business incubator project.

The need for bold, creative, and innovative approaches to problems of broad public interest is evident in the following:

During the 1950-1955 period, the United States ranked sixth in infant mortality among twenty industrialized countries and Japan tied for seventeenth place. By the 1980-1985 period, Japan ranked first and the United States tied for last place among the same groups of countries.

A black baby born within the shadow of the White House and U. S. Capitol is less likely to survive the first year of life than a black baby born in Third World Trinidad and Tobago.

By the end of this decade, at the current rate of progress, the United States will have spent at least \$2.1 billion in first-year costs alone to care for the excess numbers of low-birthweight infants who need extensive medical care and whose tragic situations could have been averted had the nation moved rapidly to reduce the incidence of low birthweight. (The Health of America's Children)

No moral and sensible nation dare continue to ignore the changing demographic, social, and economic conditions of the family and the devastating impact on the children and youth of this nation and other nations.

Memphis made its early reputation as a distribution center because it became a hub for water, road, rail, and airplane transportation coordinated through Uniport. A new type of society is emerging based on communications and informations technologies which will require that satellite transmission be added to the Uniport concept. Uniport 2000 will be based on the transmission of voice, data, and video anywhere in the world through satellite. Bid Alert is but one example of movement in this direction. Bid Alert provides subscribers with detailed information on government's needs at first in a 10 state area and later in the 50 states. It won't be long before projects supported by the Agency for International Development will be accomplished via this type of technology. A developing nation will apply to the U. S. for an

AID grant to deal with a particular problem, possibly a health issue. AID would solicit corporate contractors. A general contractor (possibly the University of Tennessee - UT Memphis) and a series of subcontractors (the Memphis consortium of educational institutions) respond to the solicitation to upgrade health care providers in Colombia, Haiti, Zambia or some other nation. A two year college's subcontract would be the training and continuing education of a broad range of health care technicians.

Such a scenario is not only possible. I predict it will become a reality someplace in the U. S. in the 1990s. The only question is where. That place could be Memphis if the will to collaborate can be sustained and the capacity to think strategically can be nurtured and visions can be transformed into reality. This would require a commitment to a new form of literacy, one which combines voice, data and video. "Value added" during the industrial society was accomplished by perfecting our capacity to extract raw materials, assemble products, and distribute products and services to people with needs in an efficient manner via water, road, rail, and air corridors. "Value added" in the emerging society will be accomplished by the ability to access the right information, to use it in creative ways, and to disseminate it to various locations in the world through a variety of communications and information technologies. The emerging technological era will require a workforce more highly trained than the current one - people who are skilled and flexible, constantly innovating, integrating, collaborating, and adding value to new knowledge and applying it quickly to issues and problems. This form of literacy consists of the integration of voice, data, and video to deal with issues and problems in health and human services--basic research, patient care

information, provider and consumer education, public service, health care facilities management, and hard and soft technology.

This same type of strategic thinking can be applied to equality of opportunity services. Recent reports on the nation's economy point to disturbing signs that the United States may be more of a nation of "haves" and "have-nots" than most people realize. While some Americans are living better than ever, certain minority groups and regions of the country are not sharing in the prosperity this great nation ought to provide. According to the U. S. Census Bureau's first-ever assessment of wealth in America, the typical white family has a median net worth of \$39,135 while the typical Black household has a net worth of just \$3,397 - one-tenth the assets. In this nation there will always be rich families and poor families, but America's pride has rested in her extremely large middle class and the opportunity offered to all people for upward mobility. Indicators suggest that this is no longer the case, that the gap is widening and there could be a permanent lower class caught forever in the cycle of poverty and dependence on social welfare programs. Furthermore, a recent report suggests that many inner-city community colleges help perpetuate social inequality through a vocational emphasis. (Students, 1986)

During the past year Shelby State designed and implemented an Entrepreneurial Development Institute intended to help disadvantaged and women road building subcontractors become certifiable by the Tennessee Department of Transportation. The EDI will attempt to provide equality of opportunity through classroom instruction, technical assistance, and the reduction in the lag between the development of new knowledge at the University of Tennessee Transportation Center and its application by disadvantaged and women

subcontractors. Eventually a few subcontractors could compete as general prime contractors, possibly through a consortial arrangement.

Strategic thinking must also be applied to the problem of illiteracy. The traditional definitions of literacy relate more frequently to the equality mission priority. One person in five in these United States above the age of seventeen is functionally illiterate based on the traditional definition of reading and comprehension. In addition, two additional persons are marginally illiterate. Research indicates these figures are increasing at an alarming rate. The Department of Education estimates that 2.3 million persons join the pool of functional illiterates each year. In Tennessee, the literacy problem is particularly acute. Depending on the measure used, Tennessee ranks between 42nd and 48th among the states in terms of literacy. (Tennessee Literacy 2000) Communications and information technology make it possible to deliver a broad range of programs and services into the home, the workplace or the community.

This nation has the tools to redesign and to restructure the education industry. Strategic thinking about the advanced technological society, the place of America in the world, and the broader public interest would yield alternative scenarios for the 1990s. A critical analysis of alternative scenarios would yield a preferred scenario for each institution. In the above-described example, Shelby State would be a participant in an information age, Morrell Act, world class contemporary technology center with school-college-business partnerships in health and human services. In addition, Shelby State would be a collaborative in providing equality of opportunity services to impact on literacy. Memphis would become a health education distribution center in the broadest sense (quality mission priority) and a literacy center (quality and equality mission priorities).

Critical Mass of Creative Intellectual Capital

After World War II this nation was on a "roll," a high that resulted from developing the capacity to supply the needs of most of the civilized world. The United States thought it could achieve virtually any goal it cared to establish. This nation expanded its physical infrastructure and then began to dedicate resources to its social infrastructure. In education, our nation progressed from a quantitative definition of access to an equality definition of access.

When Sputniks I and II were launched on October 4 and November 3 of 1957, the education industry was criticized for failure to develop the critical mass of mathematics and scientific infrastructure necessary to compete with the U.S.S.R. in the space race. This nation launched projects to redesign curricula and engage in other projects that essentially dealt with reform within layers of the educational industry.

Although education is a state function, the federal government intervened through the Elementary and Secondary Education Act of 1965, the Higher Education Act of 1965, and numerous other acts that produced programs to improve the quality of our industry. This nation created Research and Development Center (RDC) to develop new knowledge and Regional Educational Laboratories (RELs) to demonstrate and to disseminate the use of the new knowledge. It also created Educational Resources Information Centers (ERIC) to store information. The RDCs, RELs, and universities developed new products for use in the classrooms such as a variety of types of new math and science curricula. Many schools selected one or more of these new curricula, retrained existing personnel in a variety of ways, and became active participants in the transformation of a system intended to make equality of educational opportunity

a reality for the masses of people in this nation. Few nations in the world attempts to provide public education to the masses of people.

The results are mixed about the reforms of the 1960s and the early 1970s. During the quantitative expansion era, postsecondary education accepted the relatively easy task of teaching those students who had already demonstrated they knew how to learn what educators knew how to teach, and to learn it at a time and in a place convenient to the provider. During the equality revolution education was accepting a more difficult challenge. The reforms of the 1960s and the early 1970s did bring about some improvements within the various layers of education and training. For the most part, however, educational services still tend to be delivered through separate institutions working in isolation from each other. Furthermore, a great deal of the reform in the past had been directed at components of education that have benefited students who were destined to progress through secondary school and then succeed through four years of postsecondary education, approximately 27% of the population. Thus, the reform has bypassed The Neglected Majority. (Dale Parnell, 1986)

In some cases we did improve education. For the most part, however, we "dumbed down" education at most levels and contributed to greater inequality of opportunity by producing several generations of "have nots." In some instances, the deficiencies of these lost generations probably will not be repaired, and that will be a national tragedy in our attempt to provide education to the masses of people. In other instances, however, deficiencies can be repaired. Research clearly indicates that student learning can be enhanced through contemporary technology for programs that deal with both quality and equality mission priorities.

A major issue has a focus on the critical mass of creative intellectual talent necessary to develop a vision of the advanced technical society and then design and implement an information age learning paradigm. (Carnevale, Cetron, Cline and Sinnott, Goodlad, Niebuhr, Perelman, Pogrow, Leslie)

Recent research about teachers is cause for alarm. The research evidence suggests that new recruits to teaching are less academically qualified than those who are leaving. Of those who enter teacher preparatory programs, the brightest tend to select other occupations. Of those who enter teaching, the best tend to go through a career change because they are often given the most difficult assignments. The teaching force has, in the past, tended to be a major resource pool for staff and administrators in the public schools as well as professional educators for postsecondary education. (Darling-Hammond 1984)

Furthermore, the current educator workforce is aging. Some persons in the current workforce were educated in the traditional collegial model and expected to be able to teach a discipline to students in quality general education and transfer programs. Some persons in the current workforce were trained as service providers and then made a career change to education and expected to be able to teach their specialty to students in quality career programs. In many instances these persons had not benefited from a sound teacher professional component including learning theory and curriculum--content, teaching strategies and evaluation techniques. In many instances, the current educator workforce has been asked to provide equality of opportunity services to a broad array of persons for which they are ill prepared. Sometimes they are not even inclined to respond to the challenge enthusiastically. In a few instances, it is alleged that some unions and the educational bureaucracy are "hijacking education reform and holding it for ransom." Many employees don't understand

our dual mission priorities of quality and equality. Some won't accept the latter. Think of how difficult it is for "publics" outside our colleges to understand this phenomenon.

This nation has greatly underestimated the demographic, social, economic, technological, and political changes that have occurred and their impact on institutions. Education has been particularly insensitive to anticipating these macro changes and interpreting them into programmatic responses. Public policy will always lag behind the real needs. Therefore, the Association of Community College Trustees, the American Association of Community and Junior Colleges, and other national educational organizations must focus efforts on the systematic nurturing of statesmen like leaders, the critical mass of creative intellectual capital. The University Council for Educational Administration (UCEA) could provide more dynamic leadership in the development of the critical mass of creative intellectual capital, persons who would be committed to redesigning our institutions to the broader public interest and the future of America in world affairs. (Cunningham and Pazzart)

Research indicates that effective leaders tend to be remarkably well-balanced people who embody four areas of competency: (1) vision, (2) the ability to communicate that vision, (3) positive self-regard, and (4) building trust with associates. (Bennis and Nanus 1985)

Many effective leaders are passionate dreamers who have deeply-felt convictions about what should be achieved by individuals or through institutions of society. Leaders are persons who dream about issues like access or equality of opportunity; achieving and maintaining excellence; and strengthening the arts, humanities, and sciences. They dream in order to envision an agenda for individual and institutional development. The dream is

a conceptual framework that evolves over time and is based on (1) a set of values that can be translated into a philosophy and a set of guiding principles and (2) critical analysis of "what is" and "what should be." Moreover, the dream is usually something that can often be traced to a significant event in the life of the leader such as an outstanding teacher or a network of friends sharing a common interest.

Secondly, successful leaders have learned how to communicate their visions to others and inspire participation, sometimes conviction, in achieving of that vision. The ability to communicate effectively implies being articulate in a number of verbal and non-verbal ways. The dream that evolves is something that is formed and refined as a result of discussions with others and therefore includes active listening from a broad range of persons who are or may become stakeholders in the dream. This capacity for effective communication extends still farther: to the point of being able to create and to initiate ways to guide an institution or organization through a planning process that will help make that vision a reality. That planning process would begin with discussions about the dream as one important way to clarify and refine it. In the case of achieving and maintaining excellence, the discussions could begin by defining excellence and quality and be followed by a critical analysis of what is and what should be. The planning process would then include provisions for specifying the human, physical, and fiscal resources necessary for achieving that dream.

The third area of competency is positive self-regard. Leaders must first be aware of their own capabilities and limitations. In so doing they become more tolerant of the mistakes and feelings of others. They must also be aware of their values, their style of leadership, and of the culture in which they

will attempt to create and to implement the dream. Furthermore, leaders must demonstrate willingness to accept appropriate decision-making authority.

If leaders develop clear visions, effective communications skills, and positive self-regard, they may then begin to build a climate of trust with their associates. Once these three competencies are developed, leaders will gain the necessary confidence to share appropriate organizational power with their colleagues.

Will

The February 28, 1977, issue of the Chronicle of Higher Education contains an article entitled "Where Are The Leaders in Higher Education?" The author alleged that the collegial context of the 1970s caused the disappearance of the statesman leader in preference to the institutional manager. There are at least two major ways change can occur: (1) planned systematic change based on a vision of the future and on theory and research and (2) rules and regulations that are reactionary and not necessarily based on theory and research. Educational leadership has, in far too many instances, not focused on the first of these two alternatives. State legislators have, out of necessity and in response to the groundswell of public demand for improved performance, exercised the second of these two alternatives. There is a choice. Educational leadership must seize the initiative to develop models of excellence for the dual mission priorities of quality programs and equality of opportunity services. (Degrees With Integrity and Roueche and Baker)

The wave of reform in education in the 1960s and the early 1970s was essentially that of educational leadership with some federal support, primarily because of the space race and the force of equality of opportunity. The more recent wave of reform in education is driven essentially for economic reasons

and promoted primarily because of the business mindset relating to "return on investment." It is unclear at this time to tell if this nation understands the significance of redesigning and restructuring the education and training industry. It is too early to tell if people grasp what life will be like in the 21st century and the role that education should play relative to problems of broad public interest and in positioning America in world affairs in an advanced technological society. It is too early to tell if it is the will of the people to support the needed redesigning and restructuring.

Therein, however, lies the challenge for postsecondary education leadership and, in particular, two-year college leadership. When this nation faced the challenge of access in terms of quantitative expansion of quality programs and equality of opportunity services, it created a network of two-year colleges intended to be responsive to the needs of the community of which they are a part. The two-year college, an invention unique to this nation, was positioned between secondary education, on the one hand, and four-year colleges and universities, on the other hand. It attracted the attention of the nation because it created hope for members of lower socioeconomic groups, blacks, women, working adults, immigrants, and other segments of society previously denied access to postsecondary education. There was a "founding spirit" that the new institution would be a flexible stepping stone between the several rigid tiers of the educational bureaucracy and between the world of education and the world of work. In some instances these hopes are realized. In other instances, however, the "revolving door" has been one more futile exercise in failure with some of the fault resting on the consumer and much of it resting with the providers.

The two-year colleges were dreamed about by a core of leaders who

recognized the limitations of the industrial era education and training systems. The two-year colleges were designed and implemented, however, by policy makers and personnel who were "programmed" in the industrial era "school." In some instances the two-year colleges adopted all the underlying principles of the industrial era schools stated earlier in this document. In some instances the two-year colleges adopted the underlying principles of the industrial era college. In a few instances the two-year institutions accepted totally the philosophy of "community college" to serve as the basis for creating community coherence and common purposes. The tightness of the relationship between the community and the college is a function of several variables including governance structure, policy, funding, character, and culture. For the most part, however, it is a matter of understanding through the tool of strategic planning, creative leadership, and will.

Two-year colleges are strategically positioned between the layers of the educational bureaucracy and between education and work in such a manner so as to become the catalyst for serious redesign and restructuring of the education and training industry. Two-year colleges can engage in collaboratives to reduce the dislocations that are on the increase because of increased high school graduation and new university graduation requirements. They can design and implement alternative "Middle Colleges" to accommodate students who have college potential but are caught up in social problems or simply do not function in the structured industrial era school. In municipalities where community goal setting and community leadership development programs exist, the two-year college can serve as a catalyst for community education--for creating community coherence and common purpose. No other social institution has the potential that the two-year college has for creating what America needs

most--a community of character, a coherence of values, a sense of purpose, a set of long range community goals, and the critical mass of community leadership. It all begins with will.

Conclusion

The transformation from an industrial society to a technical society based on communications and informations technologies will be highlighted by numerous issues in the decade ahead. No issue will be more important, however, than developing the will to restructure education and in developing the critical mass of statesman-like leadership to create visions and preferred scenarios to guide our policy and decision - making processes and to which we can link purposeful human activity. The tool to redesign and restructure the education industry is strategic planning. Although the technology of strategic planning has been used for years in business, industry, the federal government, and the military, it is still in the early stages of adoption in post-secondary education. Two-year colleges have been slow in accepting strategic planning and management technology.

Postsecondary education in the United States is undergoing change more profound than those that transformed the nineteenth century's small religious colleges into universities. The community college is unique in that it is one of the chief innovations of higher education in the United States. Although community colleges date back to the beginning of this century, they had little sense of identity until the late 1950s when equality of educational opportunity and the accelerating rate of technological developments caused a revolution in education. Community colleges must develop the critical mass of intellectual leadership to create visions and preferred scenarios to evolve to the next stage of maturation, a stage that will forge a tighter relationship between

education and the broader public interests and that will help to shape the future of America in world affairs in the 21st Century.

In summary, the most recent education reform movement acknowledges the enormous primacy of education and training: Learning is the capital-forming industry of an advanced technical society. If this nation and all its people are to be the beneficiaries and not the victims of the advanced technical society, then we must rethink what learning will be like in the advanced technical society and how we will manage the early and continued development of those competencies and skills. We must rekindle a founding spirit and use our collective creative talents to position our colleges on the cutting edge of "The Learning Community of the Future."

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**THE LEARNING COMMUNITY
OF THE FUTURE:
EDUCATION AND TRAINING
IN THE 21st CENTURY**

KEY TERMS IN MACRO TRANSITIONS

SOCIETY = AGRICULTURAL INDUSTRIAL TECHNICAL

EMPLOYMENT = FARMER WORKER CLERK

TECHNOLOGY = TELEGRAPH TELEPHONE TELEVISION and TELECOMMUNICATIONS

TRANSMISSION = VOICE DATA VIDEO

COMPETENCY = VISUAL and LANGUAGE COMPUTATIONAL HOLISTIC

EDUCATION = QUANTITY EQUALITY QUALITY

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ISSUES

- 1. TOOLS**
- 2. INTELLECTUAL
CAPITAL**
- 3. WILL**

VISIONS OF THE FUTURE

	1955	1985	2000	2020
	Postindustrial Society	Early Technical Society	Advanced Technical Society	
HEALTH AND HUMAN SERVICES				
BUSINESS AND INDUSTRY				
GOVERNMENT AND MILITARY				
EDUCATION AND TRAINING				

The Context of Shelby State Community College

I. Memphis Area

A. Distribution Center

B. Health and Human Services Establishments

C. University of Tennessee Memphis

II. Dual Mission Priorities: Quality and Equality

A. Health and Human Service Programs

B. Business Career Programs

C. Transfer Programs

D. Remedial and Development Services

THE RESEARCH THROUGH DISSEMINATION CONTINUUM

RESEARCH → DEVELOPMENT → DEMONSTRATION → DISSEMINATION

PROBLEM:

QUALITY OF HEALTH/LIFE

RESOURCES:

CHAIRS OF EXCELLENCE

CRITICAL MASS OF HUMAN RESOURCES

INFORMATION SYSTEMS AND SERVICES

MEMPHIS METROPOLITAN CAMPUS NETWORK

PROPOSAL:

PROFESSIONAL DEVELOPMENT

CURRICULUM DEVELOPMENT

CAREER DEVELOPMENT

COMMUNITY DEVELOPMENT

DISTRIBUTION CENTER

WATER

ROAD

RAIL

**AIR — AIRPLANE
SATELLITE**

UNIPOINT 2000

VOICE

DATA

VIDEO

LITERACY CENTER

(Voice, Data, Video)

I. HEALTH AND HUMAN SERVICES

- A. Basic Research
- B. Patient Care
- C. Education — Provider and Consumer
- D. Public Service
- E. Health Care Facilities Management
- F. Technology (Hard and Soft) Transfer

II. ECONOMIC DEVELOPMENT

- A. Road and Building Construction
- B. Domestic and International Trade

III. EDUCATION AND TRAINING

- A. Home
- B. Workplace
- C. Community