A Vision for the 21st Century:
Beyond "The Leaders and Best"...

The Strategic Plan

JAMES J. DUDERSTADT, PRESIDENT
THE UNIVERSITY OF MICHIGAN

Fall 1995

Executive Summary

There is a broad consensus both among leaders of American higher education and throughout the society that it serves that the 1990s will represent a period of significant change on the part of our universities if they are to respond to the challenges, opportunities, and responsibilities before them. Indeed, many institutions have embarked on major transformation agendas similar to those of other sectors of our society.

Anticipating these changes over a decade ago, the University of Michigan set out to develop a planning process capable of guiding it into the next century. The University leadership, working closely with faculty groups and academic units, sought to develop and then articulate a compelling vision of the University, its role and mission, for the twenty-first century. This effort was augmented by the development and implementation of a flexible and adaptive planning process. Key was the recognition that in a rapidly changing environment, it was important to implement a planning process that was not only capable of **adapting** to changing conditions, but to some degree capable as well of **modifying** the environment in which the University would find itself in the decades ahead.

The first phase of this effort was essentially a positioning strategy. A vision was set to position the University of Michigan for a leadership role in higher education for the next century. Through a series of specific goals and associated initiatives, the University has become stronger, better, more diverse, and more exciting despite the significant deterioration in its state support. But this strategy has achieved leadership within the current paradigm of the research university characterizing twentieth century America. It has become increasingly clear that this paradigm may no longer be adequate to respond to the great changes occurring in our society and our world.

It is now time for the University to consider a bolder vision, a *strategic intent*, aimed at providing leadership during a period of great change. This objective, termed Vision 2017 in reference to the 200th anniversary of the University's founding, is aimed at providing Michigan with the capacity to re-invent the very nature of the university, to transform itself into an institution better capable of serving a new world in a new century. This transformation strategy contrasts sharply with the earlier positioning strategy that has characterized the past few years. It seeks to build the capacity, the energy, the excitement, and the commitment necessary for the University to explore entirely new paradigms of teaching, research, and service. It seeks to remove the constraints that prevent the University from responding to the needs of a rapidly changing society; to remove unnecessary processes and administrative structures; to question existing premises and arrangements; and to challenge, excite, and embolden the members of the University community to embark on a great adventure.

The capacity for intellectual change and renewal has become increasingly important to us as individuals and to our institutions. The challenge, as an institution, and as a faculty, is to work together to provide an environment in which such change is regarded not as threatening but rather as an exhilarating opportunity to engage in the primary activity of a university, *learning*, in all its many forms, to better serve our state, our nation, and our world.

Contents

. . . .

The Case for Change

The University of Michigan, circa 1995

The University of Michigan today is better, stronger, more diverse, and more exciting than at any time in recent memory. National rankings of the University's academic programs are the highest since these evaluations began several decades ago. The recent rise of the University to national leadership in important characteristics such as the volume of its research activity, the financial success of its Medical Center, the success of its affirmative action programs, and its financial strength (as measured by Wall Street) are additional evidence of its remarkable progress. Indeed, one could argue that the University of Michigan today is not only the leading public university in America, but that it is challenged by only a handful of distinguished private universities in the quality, breadth, capacity, and impact of its many programs and activities.

This progress has been all the more remarkable in light of the sharp deterioration in state support which has occurred in recent years. More specifically, over the past decade state support has declined in real terms by 23 percent. This continues a three-decade trend which has seen state appropriations drop from 70 percent of the University's operating budget in the 1960s to 11 percent in FY94-95. Yet the University has managed to not only maintain but enhance its quality and capacity to serve through a three-tiered strategy:

- effective cost containment
- wise management of resources
- aggressive development of alternative revenue sources

More specifically, the administrative costs of the University now rank among the lowest of our public and private peers. The implementation of sophisticated, effective programs for managing the assets of the University has resulted in four-fold growth in its endowment to over $1.3 billion. Further, the loss in state support has been compensated, to some degree, by growth in revenue from tuition and fees, sponsored research grants, private gifts, income on endowment, and auxiliary activities such as hospitals, housing, and continuing education. Particularly important in this effort was the launch of the ongoing Campaign for Michigan, now at 90 percent of its $1 billion goal.

There are many signs of the vitality and excitement of the University today. The Michigan Mandate has resulted in a far more diverse campus, increasing the number of students and faculty from underrepresented minorities by more than 70 percent over the past seven years. Indeed, students of color will comprise over 25 percent of the University's enrollment this fall, with each underrepresented ethnic group now represented at all degree levels, in all academic programs, at the highest levels in the University's history. So too, there has been significant progress on a number of fronts for women students, faculty, and staff through the recently launched Michigan Agenda for Women, including a number of women senior faculty and administrative appointments, campus safety, and dependent care.

Despite the necessity of rising tuition in the wake of deteriorating state support, we have been able to maintain effective financial aid programs that have preserved access to the

University by students from all economic backgrounds. This is demonstrated by the high admission yields in lower income groups and rising student retention rates, now the highest among all public universities. Finally, after a slight flattening during the early 1990s due to the demographic decline in the number of high school graduates, the number of applications, yield rates, and student quality are on the rise again.

In recent years, we have made major progress toward rebuilding the physical infrastructure of the University, with almost $1 billion of construction and renovation projects completed or underway, including completion of the North Campus, the Medical Campus, most of the Central Campus, and the South Campus area. The University also has acquired important new sites for further expansion such as East Medical Campus.

This same excitement has been reflected in the auxiliary units of the University. The University of Michigan Medical Center is widely recognized as one of the leading academic health centers in the nation. Continuing education programs such as the School of Business Administration's Executive Management Education programs are generally ranked as world leaders. And Michigan Athletics continues to be regarded as a national leader in the success, integrity, and visibility of its programs.

This progress has not been serendipitous. Rather it has resulted from the efforts of a great many people following a carefully designed and executed strategy. To illustrate, it is instructive to consider the highest priorities of this effort over the past several years.

The Priorities of the Past Five Years

Financial and Organizational Restructuring: To respond to the precipitous decline in state support and the growing commitments of the University, a number of steps have been taken to better attract, deploy, and manage resources. For example, broad strategic planning activities such as PACE, ACUB, and the transformation process of the University Hospitals have led to the implementation of an effective University-wide total quality management program (M-Quality). The University has restructured and repositioned the management of both its endowment and operating capital. It has moved toward more realistic pricing of University services, through increased tuition and fees and the negotiation of indirect cost rates for sponsored research. And during FY1995-96 we will be bringing up the necessary administrative systems to allow the implementation of a new resource and cost allocation system, value-centered management, that will provide both strong incentives and adequate management control at the unit level as a key step toward more efficient operation. As but one measure of the effectiveness of these efforts, in 1994 the University became the first public institution in history to have its credit rating raised to Aa1 by Wall Street (with hopes for achieving the top Aaa rating within the next year or so).

There has been a major restructuring of the auxiliary enterprises of the University, ranging from auxiliary operations such as University Hospitals, University Housing, and Intercollegiate Athletics to University-owned corporations such as Veritas and M-Care.

Key in this first phase of financial restructuring has been the building of effective leadership and management teams, extending from the Executive Officers to the lowest management

5

levels. The restructuring of the University's Personnel and Affirmative Action programs into a far more sophisticated Human Resources operation will be important to further progress.

<u>Strengthening the Bonds with External Constituencies</u>: Much of the effort of the past several years has been directed at building far stronger relationships with the multitude of external constituencies served by and supporting the University. Efforts were made to strengthen bonds with both state and federal government, ranging from systemic initiatives such as opening and staffing new offices in Lansing and Washington to developing personal relationships with key public leaders, e.g., the Governor, the White House. A parallel effort has been made to develop more effective relationships with the media at the local, state, and national level. More recent efforts have been directed toward strengthening relationships with key communities including Ann Arbor, Detroit, and Flint.

The major political changes occurring both in Congress and state government in fall of 1995, however, have necessitated significant changes in our strategy, including major new investments of resources and time. This new political climate will require a far more strategic effort by the University in the years ahead.

<u>Achieving Leadership as a Research University</u>: The University of Michigan has long been recognized as one of the leading research universities in the world. The impact of this research on the state, the nation, and the world has been immense. For the past several years we have consciously set out to increase the quality, scope, and impact of this important intellectual activity. By putting into place strong mechanisms to encourage and support research, by playing a major leadership role in determining national research policy, and by attracting and developing scholars of world-class quality, the University has moved rapidly to a position of world leadership in its research activities. Beyond simply the ranking of the University as the nation's leader in the amount of research activity, one can point to the examples provided by specific research activities such as information technology, genetic medicine, ultra-fast optics, public policy reform, and humanistic studies as evidence of the excitement and impact of the research environment on campus.

<u>Educational Transformation</u>: The cornerstone of the University's academic programs has long been undergraduate education. In recent years, there have been major efforts on the part of its undergraduate colleges—most notably LS&A—in making the commitment and taking the steps to improve the quality of the undergraduate experience at Michigan. There are a broad range of initiatives including the Gateway Seminar series for first-year students, major revisions of introductory courses in science and mathematics, and greater emphasis on teaching in the promotion and reward of faculty.

So, too, many of our professional schools have moved rapidly to restructure their educational programs. Of particular note have been the massive transformation of the medical curriculum, the innovative changes in the M.B.A. program, and the remarkable excitement surrounding the evolution of library science into a new profession of knowledge-resource management.

<u>Campus Life</u>: Much attention over the past several years has been focused on improving the quality of campus life for students, faculty, and staff. Key in this effort has been the leader-

6

ship of the Office of Student Affairs. A series of actions were taken to improve campus safety, including the development of a campus police organization; major investments in campus lighting and landscaping; and special programs such as the Sexual Assault and Prevention Center, the Night Owl transportation service, and Safewalk. Student leadership joined with the administration in developing and implementing a new code of Student Rights and Responsibilities. Broad programs have been undertaken to address the concerns of substance abuse on campus, with particular attention focused on alcohol consumption and smoking.

Efforts have been made to enhance opportunities for learning in the student living environment and through extracurricular activities. Our intercollegiate athletics programs have been restructured to broaden the participation of women and to integrate student-athletes more effectively into the broader campus community.

The Diverse University: Throughout its long history, perhaps the most distinguishing characteristic of the University has been its commitment, as stated by President Angell, to provide "an uncommon education for the common man." It has aspired to provide an education of the highest quality to all who have the ability to succeed and the will to achieve, to serve all the people of our state.

Yet, despite the degree to which the University sought to broaden its commitment to encompass gender, race, religious belief, and nationality, it has faced serious obstacles to accomplishing this goal. Many of these groups suffered from social, cultural, and economic discrimination. Simply opening doors—providing access—was not enough to enable them to take advantage of the educational opportunities of the University. To address this challenge, the University of Michigan began to transform itself five years ago to bring all racial and ethnic groups more fully into the life of the University. This process of transformation was guided by a strategic plan known as The Michigan Mandate. The fundamental vision was that the University of Michigan would become a leader known for the racial and ethnic diversity of its faculty, students, and staff—a leader in creating a multicultural community that would be capable of serving as a model for higher education and a model for society-at-large. As we have noted earlier, the impact of this effort has been remarkable. The University of Michigan today is far more diverse—and far better as a result.

Drawing on this experience, the University of Michigan has recently launched a second major initiative aimed at increasing diversity: The Michigan Agenda for Women. The vision is both simple yet compelling: By the year 2000, the University of Michigan will become the leader among American universities in promoting and achieving the success of women as faculty, students, and staff. As with the Michigan Mandate, profound and fundamental change will be necessary in the University. Yet the commitment to this new agenda is firm, and the University is determined to make substantial progress toward this vision in the years ahead.

Rebuilding the University: One of the great challenges faced by the University through the 1980s was the need to address an aging physical plant. Within recent years, a combination of low interest rates and construction costs, state capital outlay, private support, and support from auxiliary activities have enabled the University to launch a massive effort to rebuild the Ann Arbor campus. The Medical Campus has led the way with almost $1 billion of new construction over the past decade. The last remaining facilities necessary to complete the

North Campus are underway (the FXB Building, ITIC, and the Engineering Center). The South Campus has seen great activity, with the renovation or construction of most athletic facilities now complete. In addition major new facilities have been provided to support business operations (Wolverine Tower, the Campus Safety Office, and the M-Care complex).

Perhaps most encouraging has been the recent progress in addressing the needs of the Central Campus, with most of the major work now underway (the Shapiro Library; the Physics Laboratory; the Angell-Haven Connector; the Social Work Building; and major renovations of East Engineering, West Engineering, C. C. Little, and Angell Hall). Indeed, we estimate that the remaining projects necessary to complete the entire rebuilding of the Ann Arbor campus now amount to less that $100 million—a quite realistic goal for the next several years.

The Age of Knowledge: Four important themes are converging in the final decade of the twentieth century: i) the importance of the university in an age in which knowledge itself has become a key factor in determining security, prosperity, and quality of life; ii) the global nature of our society; iii) the ease with which information technology—computers, telecommunications, multimedia—enables the rapid exchange of information; and iv) networking, the degree to which informal cooperation and collaboration among individuals and institutions is replacing more formal social structures such as governments and states.

Michigan continues to play a significant leadership role in all of these arenas. Our management of NSFnet has now evolved into the NREN, the National Research and Education Network, the backbone of the Internet and the precursor of the "information superhighway." Already this effort links together over three million computers, 25,000 networks, 1,000 universities, 1,000 high schools, and over twenty-five million people worldwide.

Moreover, the University has achieved a position of national leadership in the quality of the information technology it provides for students, faculty, and staff. Through close cooperation with industry (e.g., IBM, Apple, MCI, Sun, and Xerox), the University has frequently been among the first to develop and install major new technology. Its computing and networking environment is among the most sophisticated in the world.

The Agenda for the Past Five Years

Financial and organizational restructuring
    All-funds budgeting
    M-Quality, UM Hospitals Transformation
    Asset management programs
    Financial integrity (Aa1)
    Human Resources reorganization

Strengthening the bonds with external constituencies
    State relations restructuring
    Federal relations restructuring
    Public and media relations
    Community relations

Achieving leadership as a research university
    Improving the research climate on campus
    Leadership in national research policy
    Research incentive program

Educational transformation
    Revisions of introductory courses
    Gateway Seminar series
    Emphasis on teaching in faculty reward
    Professional curriculum redesign

Campus life
    Campus safety initiatives (including campus police)
    Student Rights and Responsibilities Code
    Substance Abuse Task Force
    Student living/learning environment
    Intercollegiate Athletics

The diverse university
    The Michigan Mandate
    The Michigan Agenda for Women
    Bylaw 14.06 (Sexual Orientation)

Rebuilding the university
    Medical Center Transformation
    Completion of North Campus
    Renovation of Athletic Campus
    Rebuilding of the Central Campus
    Deferred maintenance program

The Age of Knowledge
    Evolution of Information Technology Environment
    NSFnet —> Internet—> NREN

The Challenge of Change

We can all take great pride in what the Michigan family—Regents, faculty, students, staff, alumni, and friends—has accomplished during these stressful times. Working together, we have indeed built the finest public university in America—perhaps the finest in the world. But we have built a university for the twentieth century, and that century is rapidly coming to an end. The university that we have built, the paradigms in which we have so excelled, may no longer be relevant to a rapidly changing world.

The America of the twentieth century was a nation characterized by a homogeneous, domestic, industrialized society—an America of the past. Our students will inherit a far different nation—a highly pluralistic, knowledge-intensive, world-nation that will be the America of the twenty-first century.

Many believe that we are going through a period of change in our civilization as profound as that which occurred during the Renaissance and the Industrial Revolution—except that while these earlier transformations took centuries to occur, the transformations characterizing our times will occur in a decade or less! The 1990s are viewed as the countdown toward a new millennium; we find ourselves swept toward a new century by these incredible forces of change. However, the events of the past several years suggest that the twenty-first century is already upon us, a decade early. We live in a time of breathtaking change, at a pace that continues to accelerate.

We also face a particular dilemma. The pace and nature of the changes occurring in our world have become so rapid and profound that our social institutions—in government, education, and the private sector—are having difficulty even sensing the changes (although they certainly feel the consequences), much less understanding them sufficiently to respond and adapt. Our institutions, including universities and government agencies, which have been the traditional structures for intellectual pursuits, may soon be as obsolete and irrelevant to our future as the American corporation of the 1950s. We need to explore new structures that are capable of sensing and understanding the change, and that can engage in the strategic processes necessary to adapt or control it.

As one of civilization's most enduring institutions, the university has been extraordinary in its capacity to change and adapt to serve society. The university has changed considerably over time and continues to evolve. A simple glance at the remarkable diversity of institutions comprising higher education in America demonstrates this evolution.

The challenges and changes facing higher education in the 1990s are comparable in significance to two other periods of great change for American higher education: the period in the late nineteenth century, when the comprehensive public university first appeared, and the years following World War II, when the research university evolved to serve the needs of postwar America. Many are concerned about the rapidly increasing costs of quality education and research during a period of limited resources, the erosion of public trust and confidence in higher education, and the deterioration in the partnership between the research university and the federal government. However, our institutions will be affected even more profoundly by the powerful changes driving transformations in our society, including the

increasing ethnic and cultural diversity of our people; the growing interdependence of nations; and the degree to which knowledge itself has become the key driving force in determining economic prosperity, national security, and social well-being.

One frequently hears the primary missions of the university referred to in terms of teaching, research, and service. But these roles can also be regarded as simply the twentieth century manifestations of the more fundamental roles of *creating, preserving, integrating, transmitting,* and *applying* knowledge. From this more abstract viewpoint, it is clear that while these fundamental roles of the university do not change over time, the particular realizations of these roles do change—and change quite dramatically, in fact. Consider, for example, the role of "teaching," that is, transmitting knowledge. While we generally think of this role in terms of a professor teaching a class of students, who, in turn, respond by reading assigned texts, writing papers, solving problems or performing experiments, and taking examinations, we should also recognize that classroom instruction is a relatively recent form of pedagogy. Throughout the last millennium, the more common form of learning was through apprenticeship. Both the neophyte scholar and craftsman learned by working as apprentices to a master. While this type of one-on-one learning still occurs today, in skilled professions such as medicine and in advanced education programs such as the Ph.D. dissertation, it is simply too labor-intensive for the mass educational needs of modern society.

The classroom itself may soon be replaced by more appropriate and efficient learning experiences. Indeed, such a paradigm shift may be forced upon the faculty by the students themselves. Today's students are members of the "digital" generation. They have spent their early lives surrounded by robust, visual, electronic media—Sesame Street, MTV, home computers, video games, cyberspace networks, and virtual reality. They approach learning as a "plug-and-play" experience, unaccustomed and unwilling to learn sequentially—to read the manual—and rather inclined to plunge in and learn through participation and experimentation. While this type of learning is far different from the sequential, pyramid approach of the traditional university curriculum, it may be far more effective for this generation, particularly when provided through a media-rich environment.

Hence, it could well be that faculty members of the twentieth-first century university will be asked to set aside their roles as teachers and instead to become designers of learning experiences, processes, and environments. Further, tomorrow's faculty may have to discard the present style of solitary learning experiences, in which students tend to learn primarily on their own through reading, writing, and problem solving. Instead they may be asked to develop collective learning experiences in which students work together and learn together with the faculty member becoming more of a consultant or a coach than a teacher.

One can easily identify other similarly profound changes occurring in the other roles of the university. The process of creating new knowledge—of research and scholarship—is also evolving rapidly away from the solitary scholar to teams of scholars, perhaps spread over a number of disciplines. Indeed, is the concept of the disciplinary specialist really necessary—or even relevant—in a future in which the most interesting and significant problems will require "big think" rather than "small think"? Who needs such specialists when intelligent software agents will soon be available to roam far and wide through robust networks containing the knowledge of the world, instantly and effortlessly extracting whatever a person wishes to know?

So, too, there is increasing pressure to draw research topics more directly from the world of experience rather than predominantly from the curiosity of scholars. Even the nature of knowledge creation is shifting somewhat away from the *analysis of what has been* to the *creation of what has never been*—drawing more on the experience of the artist than upon analytical skills of the scientist.

The preservation of knowledge is one of the most rapidly changing functions of the university. The computer—or more precisely, the "digital convergence" of various media from print to graphics to sound to sensory experiences through virtual reality—has already moved beyond the printing press in its impact on knowledge. Throughout the centuries the intellectual focal point of the university has been its library, its collection of written works preserving the knowledge of civilization. Yet today, such knowledge exists in many forms—as text, graphics, sound, algorithms, virtual reality simulations—and it exists almost literally in the ether, distributed in digital representations over worldwide networks, accessible by anyone, and certainly not the prerogative of the privileged few in academe.

Finally, it is also clear that societal needs will continue to dictate great changes in the applications of knowledge it accepts from universities. Over the past several decades, universities have been asked to play the lead in applying knowledge across a wide array of activities, from providing health care, to protecting the environment, from rebuilding our cities to entertaining the public at large (although it is sometimes hard to understand how intercollegiate athletics represents knowledge application).

This abstract definition of the roles of the university have existed throughout the long history of the university and will certainly continue to exist as long as these remarkable social institutions survive. But the particular realization of the fundamental roles of knowledge creation, preservation, integration, transmission, and application will continue to change in profound ways, as they have so often in the past. And hence, the challenge of change, of transformation, is, in part, a necessity simply to sustain our traditional roles in society.

There is an increasing sense among leaders of American higher education and on the part of our various constituencies that the 1990s will be a period of significant change on the part of our universities if we are to respond to the challenges, opportunities, and responsibilities before us. A key element will be efforts to provide universities with the capacity to transform themselves into entirely new paradigms that are better able to serve a rapidly changing society and a profoundly changed world.

If American higher education is to respond to the challenges, opportunities, and responsibilities before us, universities must develop the capacity to transform themselves into entirely new paradigms that can serve a rapidly changing society and a changed world.

We must unshackle the constraints that prevent our institutions from responding to the needs of a rapidly changing society; remove unnecessary processes and administrative structures; question existing premises and arrangements; and challenge, excite, and embolden members of our university communities to embark on this great adventure. Our challenge is to provide an environment in which such change is regarded not as threatening but rather as an exhilarating opportunity to engage in learning, in all its many forms, to better serve our world.

A Heritage of Leadership

Who will determine the new paradigm for the university of the twenty-first century? Who will provide the leadership? Why not the University of Michigan? After all, in a very real sense, it was Michigan that developed the paradigm of the public university capable of responding to the needs of a rapidly changing America of the nineteenth century, a paradigm that still dominates higher education today. In a sense, Michigan throughout its history has been the flagship of public higher education in America.

Although the University of Michigan was not the first of the state universities, it was the first to free itself of sectarian control and become a true public institution, governed by the people of its state. So too, the act establishing Michigan in 1837 was regarded as the most advanced and effective plan for a state university, a model for all the state institutions of higher learning which were established subsequently. From its founding, Michigan was identified with the most progressive forces in American higher education. It was the first to blend the classic curriculum with the European approach that stressed faculty involvement in research and dedication to the preparation of future scholars. It was the first university in the west to pioneer in professional education, establishing its Medical School in 1850, its Law School in 1859, and engineering courses in 1854. The University was among the first to introduce instruction in zoology and botany; modern languages, modern history, American literature, pharmacy, dentistry, speech, journalism, teacher education, forestry, bacteriology, naval architecture, aeronautical engineering, computer engineering, and nuclear engineering.

The University of Michigan has frequently been a source of major paradigm shifts in higher education. For example, the formation of the Survey Research Center and associated Institute of Social Research in the 1950s stimulated the quantitative approach to the social sciences so common today. Michigan pioneered in the development of time-sharing computing in the 1960s; and again in the 1990s it took a leadership role in building and managing the Internet, the electronic superhighway that is now revolutionizing our society. The activism of Michigan students have frequently changed our society, from the Teach-Ins against the Vietnam War in the 1960s to Earth Day in the 1970s to the Michigan Mandate in the 1980s. In a similar fashion, Michigan has played a lead role in public service, from the announcement of the Peace Corps on the steps of the Michigan Union in 1960 to a lead role in the new AmeriCorps in 1994.

Nothing could be more natural to the University of Michigan than challenging the status quo. In a sense, change has always been an important part of the University's tradition. Michigan has long been the prototype of the large, comprehensive, public research university, with a serious commitment to scholarship. It has been distinguished by unusual breadth, a rich diversity of academic disciplines, professional schools, social and cultural activities, and intellectual pluralism. It has benefited from an unusual degree of participation by faculty and students in University decisions. And throughout its history, Michigan has long been known for a spirit of democracy and tolerance among its students and faculty. Over a century ago *Harper's Weekly* noted that "the most striking feature of the University of Michigan is the broad and liberal spirit in which it does its work."

Mission, Vision, and Strategic Intent

The Mission

The University of Michigan's mission is complex, varied, and evolving. At the most abstract level, this mission involves the creation, preservation, integration, transmission, and application of knowledge to serve society. In this sense, the University produces not only educated people but knowledge and knowledge-intensive services such as R&D, professional consultation, health care, and economic development. Yet all of these activities are based upon the core activity of *learning*.

> **Mission:**
> **The mission of the University is *learning*...in the service of the state, the nation, and the world.**

The University serves a vast array of constituents—students at the undergraduate, graduate, professional, and continuing education levels; patients; local, state, and federal government; business and labor; and communities, states, and nations. It also serves society-at-large. This latter fact is quite important. The University of Michigan is one of the few universities in the world that could claim society-at-large as its primary client. Throughout its history, the University's enduring impact has been through its full array of activities rather than through one subcomponent of its triad mission of undergraduate teaching, research, and public service. Indicative of this unusually broad role is the array of shareholders in the University, including state and federal government, students and parents, patients, business, foundations, and, of course, alumni and friends of the University.

The Vision

Like many large organizations, strategic planning exercises at the University have proceeded through a variety of mechanisms, formal and informal, centralized and distributed among various units. Most efforts during the past decade have begun with an effort to articulate a vision of the University's future. Despite the great diversity of planning groups, visioning efforts generally converged on two important themes: *leadership and excellence*.

The general sense among those who have participated in these planning exercises is that the quality of the University and its leadership—both as an institution and in the achievements of its people—will determine its impact on society, the state, the nation, and the world. Leadership and excellence have characterized the University throughout its history. The University was the first major public university in America. Perhaps as much as any institution, the University of Michigan defined the nature of higher education in the twentieth century. Michigan's distinctiveness and strength have evolved from the power of focused quality, which it shares with the most selective private institutions, and the diversity, openness, and breadth that it shares with the best large public universities.

We have attempted to capture the heritage of our past and this aspiration for the future in a simple vision statement that borrows a phrase from the University's famous fight song, "The Victors":

14

Vision 2000: "The leaders and best..."
The University of Michigan should position itself to become the leading university of the twenty-first century, through the quality and leadership of its programs, and through the achievements of its students, faculty, and staff.

Note that this vision emphasizes both leadership as an institution and the development of leaders among members of the University community, all based on a foundation of excellence in our programs. Vision 2000 recognizes that the central task of the University, a task that separates it from all other social institutions, is the creation of an environment where the quality of the mind and its performance is always the central concern. It recognizes that the spirit most likely to develop leaders is a disciplined use of reason, enlivened by daring and the courage to experiment, and tempered by respect for what we can learn from others. At the institutional level, our mission is to further distinguish ourselves, among universities, as genuine innovators and pioneers, always challenging us to extend our capacities, strengths, and resources.

This leadership vision requires a comprehensive strategy involving improving and optimizing all of the key characteristics of the University: quality, capacity (size), breadth (comprehensiveness), excellence, and innovation. As a result of the positioning strategy associated with Vision 2000, the University of Michigan has made very considerable progress over the past decade. Indeed, one could argue that the University of Michigan today is not only the leading public university in America, but that it is challenged by only a handful of distinguished private universities in the quality, breadth, capacity, and impact of its many programs and activities.

The Strategic Intent

However, even as we take pride and satisfaction in the achievements of the Vision 2000 strategy, we must turn to greater challenges. It is now time for the University to consider a bolder vision—in the language of strategic planning, a *strategic intent*—aimed at achieving excellence and leadership during a period of great change. A strategic intent for an organization provides a "stretch vision" that cannot be achieved with current capabilities and resources, forcing an organization to be inventive and to make the best use of resources. The traditional view of strategy focuses on the fit between existing resources and current opportunities; strategic intent creates an extreme misfit between resources and ambitions. Through this, we are able to challenge the institution to close the gap by building new capabilities.

This strategic intent, termed **Vision 2017** in reference to the year of the 200th anniversary of the University's founding, is aimed at providing Michigan with the capacity to re-invent the very nature of the university, to transform itself into an institution better capable of serving a new world in a new century.

To develop this more challenging vision of the University's future, it is appropriate to begin with descriptors that convey both our most cherished values and our hopes for the future. The following are shared values that have played important roles in the Michigan tradition:

- Excellence
- Leadership
- Critical and rational inquiry
- Liberal learning
- Diversity
- Caring and concern
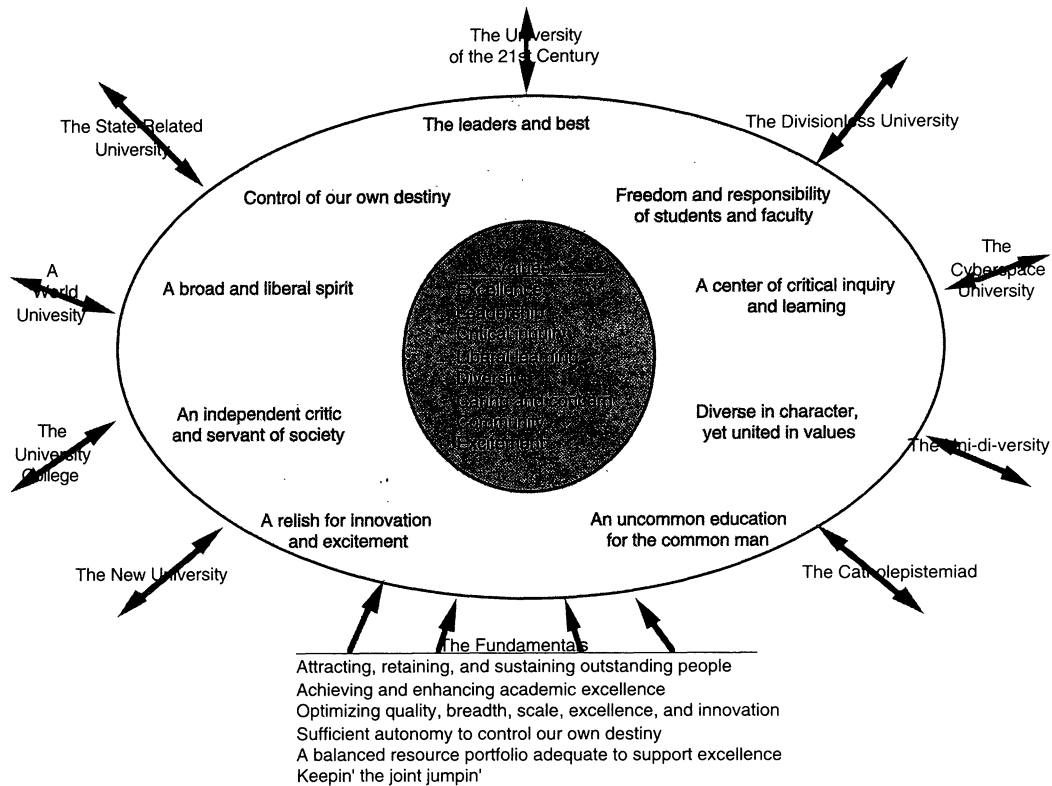- Community
- Excitement

Beyond this, we might also choose from among the many past descriptors of the characteristics of the University, those that are important to preserve:

- "The leaders and best . . . "
- "An uncommon education for the common man (person) . . . "
- "A broad and liberal spirit . . . "
- "Diverse, yet united in a commitment to academic excellence and public service . . . "
- "A center of critical inquiry and learning . . . "
- "An independent critic and servant of society . . . "
- "A relish for innovation and excitement . . . "
- "Freedom with responsibility for students and faculty . . . "
- "Control of our own destiny comparable to private universities..."

Undergirding these values and characteristics would be aspirations that characterize "the fundamentals," those actions and goals that must receive high priority to achieve our vision:

- Attracting, retaining, and sustaining the most outstanding people (students, faculty, staff)
- Achieving, enhancing, and sustaining academic excellence in teaching and scholarship
- Optimizing balance between quality, breadth, scale, excellence, and innovation
- Sufficient autonomy to control our own destiny
- A diversified resource portfolio, providing a stable flow of resources necessary for leadership and excellence regardless of the ebb and flow in particular areas (state, federal, private giving,...)
- Keepin' the joint jumpin!

In this spirit, then, let us suggest one possible model for the University of Michigan that is built on a foundation of our traditional values and a recognition of the challenges and opportunities that we will face in the decades ahead. We have identified this model as Vision 2017, the year when the University of Michigan will begin its third century of serving the state, the nation, and the world:

The University
of the 21st Century

The State-Related University
The Division-less University

The leaders and best

Control of our own destiny
Freedom and responsibility of students and faculty

A World University

A broad and liberal spirit
A center of critical inquiry and learning
The Cyberspace University

An independent critic and servant of society
Diverse in character, yet united in values
The Uni-di-versity

The University College

A relish for innovation and excitement
An uncommon education for the common man

The New University
The Catholepistemiad

The Fundamentals
Attracting, retaining, and sustaining outstanding people
Achieving and enhancing academic excellence
Optimizing quality, breadth, scale, excellence, and innovation
Sufficient autonomy to control our own destiny
A balanced resource portfolio adequate to support excellence
Keepin' the joint jumpin'

Notice that we have arranged around this core of values and characteristics ten paradigms of the university:

1. **The State-related, but World-supported, University**: A university with a strong public character, but supported primarily through resources it must generate itself (e.g., tuition, federal grants, private giving, auxiliary enterprises).

2. **The World University**: As a new world culture forms, a number of universities will evolve into learning institutions serving the world, albeit within the context of a particular geographical area (e.g., North America).

3. **The Diverse University (or "Transversity")**: A university drawing its intellectual strength and its character from the rich diversity of humankind, providing a model for our society of a pluralistic learning community in which people respect and tolerate diversity even as they live, work, and learn together as a community of scholars.

4. **The Cyberspace University**: A university that spans the world (and possibly even beyond) as a robust information network linking together students, faculty, graduates, and knowledge resources.

5. **The Creative University**: As the tools for creation become more robust (e.g., creating materials atom-by-atom, genetically engineering new life forms, or generating artificial intelligence or virtual reality with computers), the primary activities of the university will shift from a focus on analytical disciplines and professions to those stressing creative activities (i.e., "turning dreams into reality).

6. **The Divisionless University**: The current disciplinary (and professional) organization of the university is viewed by many as increasingly irrelevant to their teaching, scholarship, and service activities. Perhaps the university of the future will be more integrated and less specialized through the use of a web of virtual structures that provide both horizontal and vertical integration among the disciplines and professions.

7. **The University College**: It seems clear that we need to develop a new paradigm for undergraduate education within the complex environment provided by a comprehensive research university. This "university college" should draw on the intellectual resources of the entire university: its scholars; libraries; museums; laboratories; graduate and professional programs; and its remarkable diversity of people, ideas, and endeavors.

8. **The Catholepistemiad**: Since education will increasingly require a lifetime commitment, perhaps the university should reinvent itself to span the entire continuum of education, from cradle to grave. It could form strategic alliances with other components of the educational system, and commit itself to a lifetime of interaction with its students/graduates, providing them throughout their lives with the education necessary to meet their changing goals and needs.

9. **The New University**: Could we create within our institutions a "laboratory" or "new" university that would serve as a prototype or test bed for possible features of the university of the twenty-first century? The "New U" would be an academic unit consisting of students, faculty, and programs. Its mission: to provide the intellectual and programmatic framework for continual experimentation.

10. **The Knowledge Server**: Perhaps the triad mission of the university—teaching, research, and service—is simply the twentieth-century manifestation of the more fundamental roles of creating, preserving, transmitting, and applying knowledge. While this fundamental "knowledge server" definition of the university does not change over time, it seems clear that the particular realization of these roles is changing rapidly (e.g., digital convergence, collective learning, strategic research).

While none of these would be appropriate alone to describe the University as it enters its third century, each is a possible component of our institution, as seen by various constituents. Put another way, each of these paradigms is a possible pathway toward the University of the twenty-first century. Each is also a pathway that we should explore in our effort to better understand our future.

To be sure, any of these visions of the University of Michigan, circa 2017, would require significant change in our institution. As it has so many times in the past, the University must continue to change and evolve if it is to serve society and achieve leadership in the century ahead. The status quo is simply not an acceptable option.

Hence, our strategic intent, the Vision 2017, is aimed at providing Michigan with the capacity to re-invent the very nature of the university, to transform itself into an institution better capable of serving a new world in a new century.

Vision 2017: Re-inventing the University
Our objective for the next several years is to provide the University
with the capacity to transform itself into an institution better capable
of serving our state, our nation, and the world.

This transformation strategy contrasts sharply with the earlier positioning strategy, Vision 2000, that has characterized the past decade. It seeks to build the capacity, the energy, the excitement, and the commitment necessary for the University to explore entirely new paradigms of teaching, research, and service.

Transforming the University

So how does an institution as large, complex, and tradition-bound as the modern research university transform itself to fulfill its mission, achieve its vision, and move toward its strategic intent? Historically, we have accomplished change using a variety of mechanisms: i) buying change with additional resources; ii) building the consensus necessary for grassroots support of change; iii) changing key people; iv) through finesse, stealth of night; v) a "Just do it!" approach, that is, top-down decisions followed by rapid execution (following the old adage that "it is better to seek forgiveness than to ask permission").

For the transformation necessary to move toward the major paradigm shifts that will likely characterize higher education in the years ahead, we need a more strategic approach capable of staying the course until the desired changes have occurred. Many institutions already have embarked on major transformation agendas similar to those characterizing the private sector. Some even use similar language as they refer to their efforts to "transform," "restructure," or even "reinvent" their institutions. But, of course, herein lies one of the great challenges to universities, since our various missions and our diverse array of constituencies give us a complexity far beyond that encountered in business or government. For us the process of institutional transformation is more complex.

Through earlier efforts to restructure the University of Michigan (e.g., the "smaller but better" effort of the early 1980s) and from the experience of other organizations in both the private and public sector, several features of transformation processes should be recognized at the outset:

• First, it is critical to define the real challenges of the transformation process properly. The challenge is usually not financial or organizational. It is the degree of cultural change required. We must transform a set of rigid habits of thought and arrangements that are incapable of responding to change rapidly or radically enough.

• True faculty participation in the design and implementation of the transformation process is necessary since the transformation of the faculty culture is the biggest challenge of all.

• An external group is not only very helpful but probably necessary to provide credibility to the process and assist in putting controversial issues on the table (e.g., tenure reform).

• Unfortunately, no universities—and few organizations in the private sector—have been able to achieve major change through the motivation of opportunity and excitement alone. It has taken a crisis to get folks to take the transformation effort seriously; sometimes even this is not sufficient.

• The president must play a critical role as leader and educator in designing, implementing, and selling the transformation process, particularly to the faculty.

To summarize, the most important and difficult part of any transformation process involves changing the culture of the institution. It is here that we must focus much of our attention in the years ahead. We seek both to affirm and intensify Michigan's commitment to academic excellence and leadership. We seek to build more of a sense of community and of pride in and commitment to the University. We also seek to create more of a sense of excitement and

adventure among students, faculty, and staff while aligning the University to better serve a rapidly changing society.
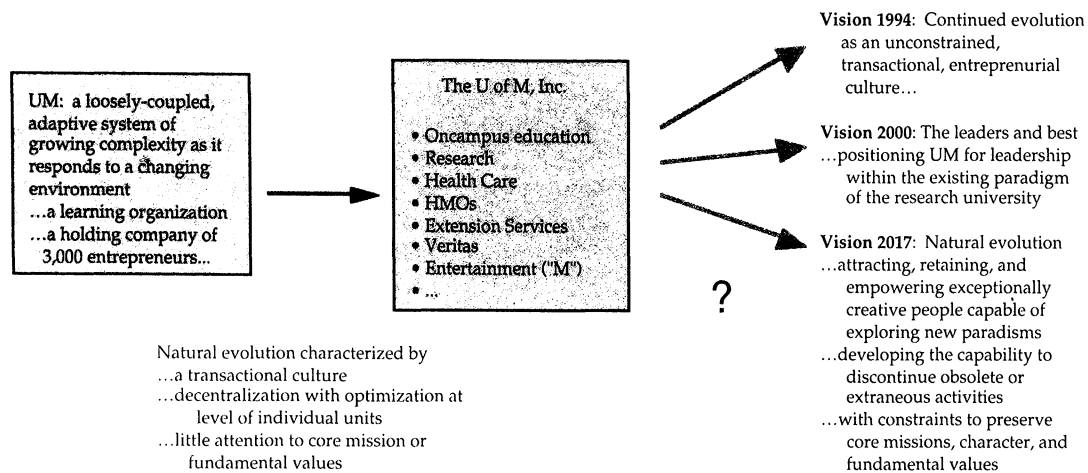
The necessary transformations will go far beyond simply restructuring finances to face the brave new world of limited resources. They will encompass every aspect of our institutions, including:

- the mission of the university
- financial restructuring
- organization and governance
- general characteristics of the university
- intellectual transformation
- relations with external constituencies
- cultural change

A key element will be efforts to provide the university with the capacity to explore new paradigms that are better able to serve a rapidly changing society and a changed world. We must remove the constraints that prevent our institutions from responding to the needs of a rapidly changing society and remove unnecessary processes and administrative structures. We must question existing premises and arrangements and encourage the members of our university communities to embark on this great adventure. Our challenge is to work together to provide an environment in which such change is regarded not as threatening, but rather as an exhilarating opportunity to engage in learning, in all its many forms, to better serve our world.

Another challenge is simply to understand the nature of the contemporary university and the forces that drive its evolution The public still thinks of us in very traditional ways, with images of students sitting in a large classroom listening to a faculty member lecture on subjects such as literature or history. Our faculty have more of an Oxbridge image, thinking of themselves as dons and of their students as serious scholars. The federal government thinks of us as just another R&D contractor or health provider, a supplicant for the public purse. Yet the reality is far different—and far more complex.

In many ways, the university today looks like a corporate conglomerate, comprised of many business lines, some nonprofit, some publicly regulated, and some operating in intensely competitive marketplaces. We teach students; we conduct R&D for various clients; we provide health care; we engage in economic development; and we provide mass entertainment (...athletics...). In systems terminology, the modern university is a loosely-coupled adaptive system, with a growing complexity as its various components respond to changes in its environment. We have developed a transactional culture, in which everything is up for negotiation. In a very real sense, the university of today is a holding company of faculty entrepreneurs, who drive the evolution of the university to fulfill their individual goals.

UM: a loosely-coupled, adaptive system of growing complexity as it responds to a changing environment
...a learning organization
...a holding company of 3,000 entrepreneurs...

The U of M, Inc.
- Oncampus education
- Research
- Health Care
- HMOs
- Extension Services
- Veritas
- Entertainment ("M")
- ...

Vision 1994: Continued evolution as an unconstrained, transactional, entreprenurial culture...

Vision 2000: The leaders and best ...positioning UM for leadership within the existing paradigm of the research university

Vision 2017: Natural evolution ...attracting, retaining, and empowering exceptionally creative people capable of exploring new paradisms ...developing the capability to discontinue obsolete or extraneous activities ...with constraints to preserve core missions, character, and fundamental values

Natural evolution characterized by
...a transactional culture
...decentralization with optimization at level of individual units
...little attention to core mission or fundamental values

But, while the entrepreneurial university has been remarkably adaptive and resilient throughout the twentieth century, it also faces serious challenges. Many contend that we have diluted our core business of learning, particularly undergraduate education, with a host of entrepreneurial activities. We have become so complex that few—including our own faculty—understand what we have become. We have great difficulty in allowing obsolete activities to disappear. Today we face serious constraints on resources that no longer allow us to be all things to all people. We also have become sufficiently encumbered with processes, policies, procedures, and past practices that our best and most creative people no longer determine the direction of our institution.

To respond to future challenges and opportunities, the modern university must engage in a more strategic process of change. While the natural evolution of a learning organization may still be the best model of change, it must be augmented by constraints to preserve our fundamental values and mission. We must find ways to allow our most creative people to drive the future of our institutions.
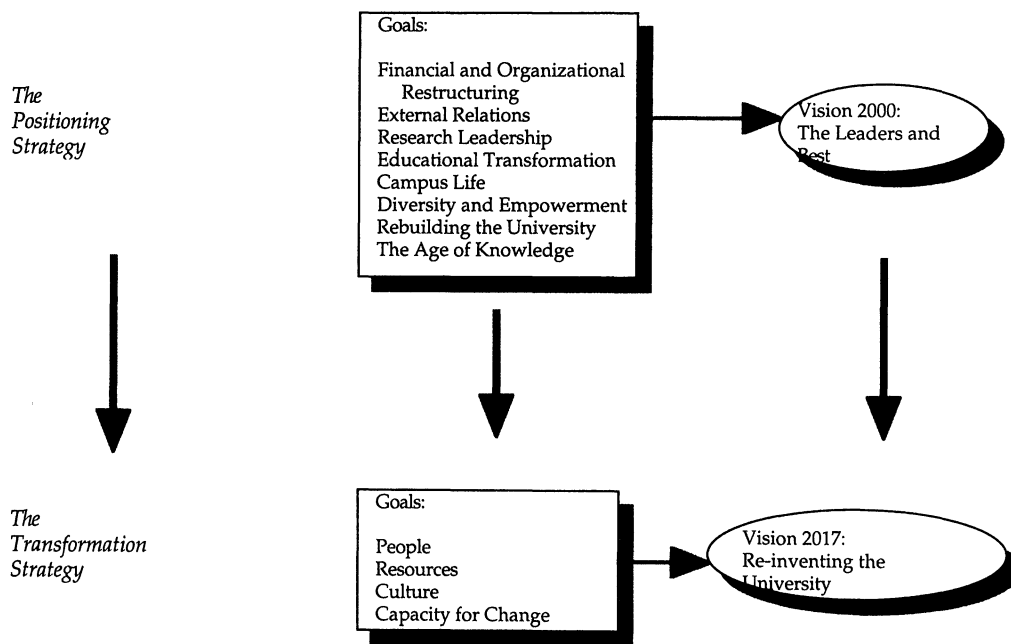
Our challenge is to tap this great source of creativity and energy associated with entrepreneurial activity, but in a way that preserves our fundamental mission and values. We need to encourage our tradition of natural evolution but do so with greater strategic intent. Instead of continuing to evolve as an unconstrained transactional entrepreneurial culture, we need to guide this process in such a way as to preserve our core missions, characteristics, and values.

The Goals

The vision of positioning the University of Michigan as a leader of higher education for the next century is both important and challenging. It involves achieving leadership and excellence within the present paradigm of the university in America, of polishing the status quo, of becoming the very best "university of the twentieth century" that we can become.

The transformation process is designed to move beyond this, to provide the University with the capacity to transform itself into new paradigms more capable of serving a rapidly changing society and a profoundly changed world. Our real objective is to build the capacity, energy, excitement, and commitment necessary for the University to move toward such bold visions.

A diagram depicting this evolution from a positioning to a transformation strategy follows:

The Positioning Strategy

Goals:

Financial and Organizational
    Restructuring
External Relations
Research Leadership
Educational Transformation
Campus Life
Diversity and Empowerment
Rebuilding the University
The Age of Knowledge

Vision 2000:
The Leaders and
Best

The Transformation Strategy

Goals:

People
Resources
Culture
Capacity for Change

Vision 2017:
Re-inventing the
University

The goals proposed to move the University toward both the leadership positioning Vision 2000 and the paradigm-shifting Vision 2017 can be stated quite simply:

Goal 1: People
To attract, retain, support, and empower exceptional students, faculty, and staff.

Goal 2: Resources
To provide these people with the resources and environment necessary to push to the limits of their abilities and their dreams.

Goal 3: Culture
To build a University culture and spirit that values:
- adventure, excitement, and risk-taking
- leadership
- excellence
- diversity
- caring, concern, and community

Goal 4: The Capacity for Change
To develop the flexibility, the ability to focus resources necessary to serve a changing society and a changing world.

Although simply stated, these four goals are profound in their implications and challenging in their execution. For example, while we have always sought to attract high quality students and faculty to the University, we tend to recruit those who conform to more traditional measures of excellence. If we are to go after "paradigm breakers," then other criteria such as creativity, intellectual span, and the ability to lead become important.

We need to acquire the resources to sustain excellence, a challenge at a time when public support is dwindling. Yet this goal suggests something beyond that: we must focus resources on our most creative people and programs. And we must acquire the flexibility in resource allocation to respond to new opportunities and initiatives.

While most would agree with the values set out in the third goal of cultural change, many would not assign such a high priority to striving for adventure, excitement, and risk-taking. However, if the University is to become a leader in defining the nature of higher education in the century ahead, this type of culture is essential.
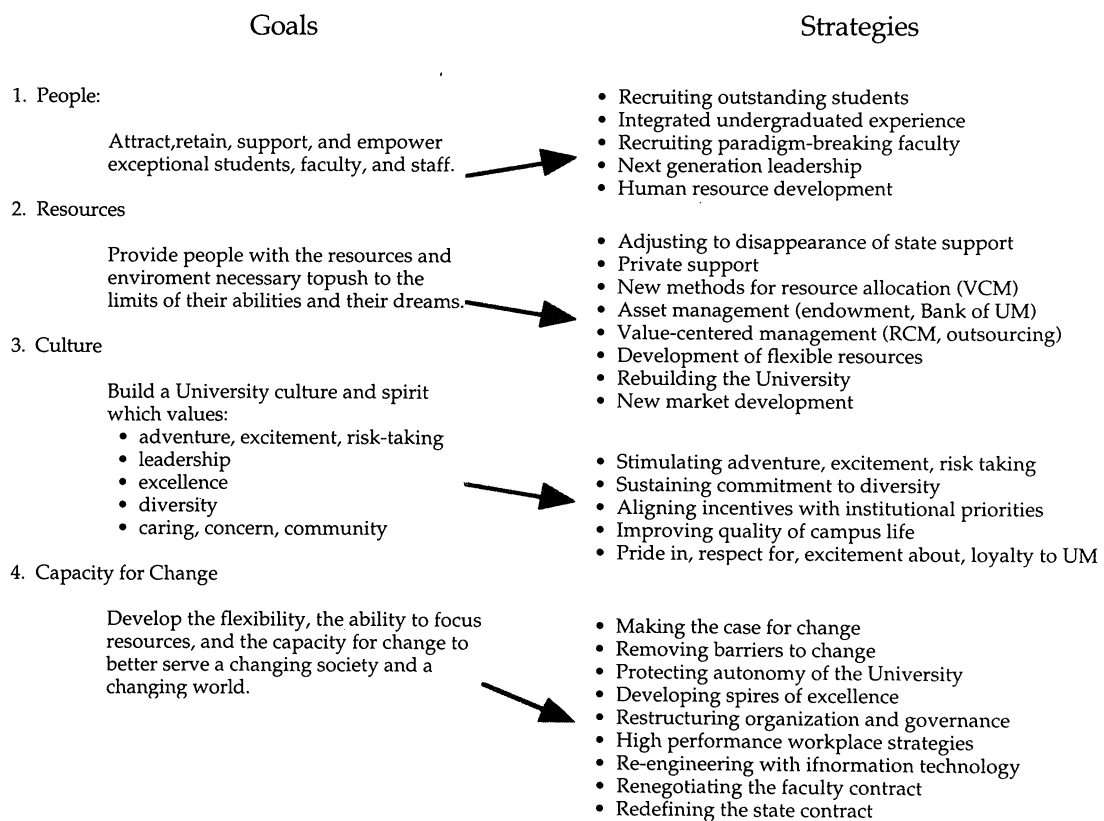
Developing the capacity for change, while an obvious goal, will be both challenging and controversial. We must discard the status quo as a viable option; challenge existing premises, policies, and mindsets; and empower our best people to drive the evolution—perhaps, revolution—of the University.

The Strategy

Strategic Initiatives

To achieve transformations across these areas that move the University toward Vision 2017, we propose to organize the effort through a series of strategic thrusts or initiatives. Each strategic thrust will be designed as a self-contained effort, with a clearly-defined rationale and specific objectives. However all such initiatives will be chosen to move the University toward the more general (and abstract) goals of Vision 2017. Further, care will be taken to monitor and coordinate carefully the strategic thrusts, since they will interact quite strongly with one another.

We have identified the strategic initiatives associated with each of the goals of Vision 2017:

Goals	Strategies
1. People: Attract, retain, support, and empower exceptional students, faculty, and staff.	• Recruiting outstanding students • Integrated undergraduated experience • Recruiting paradigm-breaking faculty • Next generation leadership • Human resource development
2. Resources Provide people with the resources and enviroment necessary topush to the limits of their abilities and their dreams.	• Adjusting to disappearance of state support • Private support • New methods for resource allocation (VCM) • Asset management (endowment, Bank of UM) • Value-centered management (RCM, outsourcing) • Development of flexible resources • Rebuilding the University • New market development
3. Culture Build a University culture and spirit which values: • adventure, excitement, risk-taking • leadership • excellence • diversity • caring, concern, community	• Stimulating adventure, excitement, risk taking • Sustaining commitment to diversity • Aligning incentives with institutional priorities • Improving quality of campus life • Pride in, respect for, excitement about, loyalty to UM
4. Capacity for Change Develop the flexibility, the ability to focus resources, and the capacity for change to better serve a changing society and a changing world.	• Making the case for change • Removing barriers to change • Protecting autonomy of the University • Developing spires of excellence • Restructuring organization and governance • High performance workplace strategies • Re-engineering with ifnormation technology • Renegotiating the faculty contract • Redefining the state contract

1. People: To attract and sustain exceptional students, faculty, and staff, we propose the following strategic initiatives:

• Recruiting Outstanding Students (pending): The University needs to place more emphasis on identifying and attracting students of truly exceptional ability. Key in this effort will be a major expansion of merit scholarship programs such as the Bentley Scholars. Extending the dual admission practice of the Interflex program to other professional and graduate programs will also be useful in attracting outstanding students. We also need to reduce the disciplinary barriers between various graduate and professional programs to attract the very best graduate students.

• A Recommitment to High-quality Undergraduate Education (pending): The University should make a renewed commitment to high-quality undergraduate education that draws on its full resources. In particular, the University should strive to develop a unique paradigm for undergraduate education appropriate for a comprehensive research university than integrates its multiple missions of teaching, research, and service.

• Recruiting Paradigm-breaking Faculty (pending): We should allocate base resources toward the recruitment of truly exceptional faculty through a University-wide process similar to the "Target of Opportunity Program," perhaps coupled with institution-wide appointments such as University Professorships.

• Next Generation Leadership (in progress): We need to develop and select leaders for key University roles who relish the challenge and excitement of leading during a period of change and transformation.

• Human Resource Development (in progress): The University should give higher priority to human resource development throughout all areas of the institution. The major restructuring of our human resources organization was an important first step. A renewed commitment to education, training, and career planning for both staff and faculty is also important.

2. Resources: As with any transformation effort, significant attention must be focused on the acquisition and deployment of the resources necessary for excellence and leadership. Many of the strategic initiatives associated with such an agenda are already well underway:

• Adjusting to the Disappearance of State Support (in progress): There is little hope that the current trend of deteriorating state support will reverse itself. Because of the limited will and capacity to support higher education and in the face of a weakened economy and other social needs, the state will at best be able to support higher education at the level of a comprehensive four-year college. Political pressures will make it increasingly difficult to put a priority on state support for a flagship institution and instead will drive a leveling process in which the state appropriation per student is equalized across the state. The only prudent course is to assume that state support will continue to decline for the foreseeable future, from its present level of 11 percent of our total budget (35 percent of the General Fund) to perhaps 7 percent (20 percent of the General Fund) by the end of this decade.

However, balancing this decline in state support will be the extraordinary opportunities afforded by a society that is becoming increasingly knowledge-dependent. One might well characterize higher education as the ultimate "growth industry" of the twenty-first century. With vision, skill, and commitment, the University should have little difficulty generating adequate resources to sustain its quality, breadth, and capacity. It should be able to do so while protecting its fundamental character as a public institution—although, of course, the nature of the "public" it serves will broaden far beyond the state to include the nation and the world.

Key to this effort to accommodate declining state support will be the University's ability to determine its own destiny, to take the steps necessary to move in new directions in new ways. In this sense, protecting the constitutional autonomy of the University may prove far more important—and perhaps far more challenging—than sustaining the current level of state support.

- Building Private Support to Levels Adequate to Replace State Support (in progress): For some time it has been recognized that increasing private support of the University, both through private giving and income from endowment, would be a critical element of adapting to a future of increasingly constrained state support. Key elements in this effort were the conduct of successful fund-raising campaigns and a sophisticated asset management strategy for endowment. The University set a goal for the year 2000 of building private support— annual gifts plus income distributed from endowment—to a level comparable to state appropriation ($280 million a year). With private support increasing from $75 million a year in 1988 to $200 million a year in 1995, we are well on track to achieve this objective. One might even envision a time when the endowment income alone will exceed the University's state appropriation—although this might be interpreted more as a measure of our pessimism about future state support than our optimism about growth in the University's endowment.

- New Methods for Resource Allocation and Management (in progress): We will be taking a series of important steps to restructure the University financially to enable us to respond better to the challenges and opportunities of the 1990s. We have already moved beyond the constraints of incremental fund accounting to adopt all-funds budgeting and management. Over the new few years, we hope to move toward responsibility center management in which academic, administrative, and auxiliary units of the University will retain all unit-generated revenues (e.g., tuition, research support, private gifts, and auxiliary income) with the associated responsibility of covering all unit-driven costs. Funds to support centrally provided services and subvention of key academic units will be generated through a small tax on unit expenditures. More extensive use of competitive pricing and outsourcing of services will be necessary to enable units to better control costs and streamline internal operations. This new system is aimed at three objectives: i) to allow resource allocation decisions to be driven by the values, core mission, and priorities of the University rather than dictated by external forces; ii) to provide a framework for such decisions consisting of knowledge of the true resource flows throughout the University; and iii) to allow both academic and administrative units to participate as full partners with the central administration in making these resource allocation decisions.

• <u>Asset Management</u> (in place): A sophisticated and effective investment strategy for managing the financial assets of the University has been developed and put into place during the past several years. Largely as a result of this strategy, the endowment of the University has been increased from $280 million to $1.3 billion over the past six years, with a goal of achieving an endowment of $2.5 to $3.0 billion by 2000. The University has also put in place a central banking structure to better manage its roughly $1.5 billion of working assets.

• <u>Development of Flexible Resources ("Venture Capital")</u> (pending): To move the University forward will require more flexibility to support new initiatives and change. While the Responsibility Center Management system should provide some of this capacity, it will be important to attract or reallocate sufficient "venture capital" to support the array of initiatives associated with University transformation throughout the next several years.

• <u>Rebuilding the University</u> (in place): One of the great challenges faced by the University through the 1980s was the need to address an aging physical plant. Within recent years, a combination of low interest rates and construction costs, state capital outlay, private support, and support from auxiliary activities have enabled the University to launch a massive effort to rebuild the Ann Arbor campus. The Medical Campus has led the way with almost $1 billion of new construction over the past decade. The last remaining facilities necessary to complete the North Campus are underway (the FXB Building, ITIC, and the Engineering Center). The South Campus has seen great activity, with the renovation or construction of most athletic facilities now complete. In addition major new facilities have been provided to support business operations (Wolverine Tower, the Campus Safety Office, and the M-Care complex).

Perhaps most encouraging has been the recent progress in addressing the needs of the Central Campus, with most of the major work now underway (the Shapiro Library; the Physics Laboratory; the Angell-Haven Connector; the Social Work Building; major renovations of East Engineering, West Engineering, C. C. Little, and Angell Hall). Indeed, we estimate that the remaining projects necessary to complete the entire rebuilding of the Ann Arbor campus now amount to less that $100 million—a realistic goal for the next several years.

• <u>New Market Development</u> (pending): As both the need for and capacity to deliver educational services become increasingly decoupled from space and time, the University needs to explore new markets for its activities. Possibilities range from on campus programs such as summer sessions and continuing education to world-wide educational programs facilitated by multimedia computer networks.

3. Culture: Among the more difficult challenges will be initiatives designed to stimulate changes in the "institutional culture" necessary to respond to a changing world.

• <u>Stimulating a Sense of Adventure, Excitement, Risk-taking</u> (pending): It is clear that during a period of rapid change, the capacity of the University to try new things, to be adventurous and experimental, will become increasingly important. Indeed, the unusual size, comprehensiveness, and quality of the institution should provide it with an unusual capacity for such risk-taking. Ironically, the Michigan culture today is rather conservative

and averse to risk. We must create a more fault-tolerant community, in which risk-taking is encouraged, failure is anticipated and tolerated, and creativity and innovation are prized. While there are many approaches to this effort, perhaps one of the most attractive is to launch a number of major experiments aimed at exploring various possible paradigms of the Universitiy of the twenty-first century. Among these efforts might be included the New School experiment involving information technology and society, the Media Union (ITIC) that can explore both the cyberspace university and creative university themes, the Gateway Campus aimed at exploring the university college theme, and the New University that seeks to build a ongoing laboratory for exploring future university structures.

- <u>Sustaining the University's Commitment to Diversity</u> (in place): Although the University has made great progress in achieving greater diversity among its students, faculty, and staff through strategic efforts such as the Michigan Mandate and the Michigan Agenda for Women, it is clear that such efforts need to continue to be among the very highest priorities of the institution. Many members of the University community have stepped forward to embrace the importance of diversity and commit themselves to these programs. However many others continue to resist such changes. Hence this agenda must continue to receive the ·highest level of attention from all members of the University leadership.

- <u>Aligning Privilege with Accountability, Responsibility with Authority</u> (pending): We must take steps to better align responsibility with authority and privilege. All too often those who are responsible for various decisions or goals do not enjoy the authority or trust necessary to accomplish these objectives. Then, too, there are those, including many members of the faculty, who are in positions of great privilege and yet are reluctant to acknowledge their responsibility and accountability to the University or the society it serves.

- <u>Aligning Faculty/Staff Incentives with Institutional Priorities</u> (pending): While the highly decentralized, entrepreneurial culture of the modern university is remarkably adaptive to change, faculty generally move toward individual or local unit goals rather than embracing institutional goals. As we have noted, part of our challenge is to tap the extraordinary energy of this entrepreneurial spirit and align it with institutional goals. Key in this effort will be the establishment of strong incentives, such as incentive compensation and promotion criteria, that reflect the broader goals of the University.

- <u>Continuing Efforts to Improve the Quality of Campus Life</u> (in place): Much attention over the past several years has been focused on improving the quality of campus life for students, faculty, and staff. For example a series of actions have been taken to improve campus safety, including the development of a campus police organization; major investments in campus lighting and landscaping; and special programs such as the Sexual Assault and Prevention Center, the Night Owl transportation service, and Safewalk. Student leadership joined with the administration in developing and implementing a new code of Student Rights and Responsibilities. Broad programs have been undertaken to address the concerns of substance abuse on campus, with particular attention focused on alcohol consumption and smoking.

Efforts have been made to enhance opportunities for learning in the student living environment and through extracurricular activities. Our intercollegiate athletics programs have been restructured to broaden the participation of women and to integrate student-athletics more effectively into the broader campus community.

• Achieving a Commitment to Community, Tolerance, and Respect (In Process): The increasing specialization of faculty and the long tradition of decentralization have eroded the sense of a learning community and the commitment to general institutional goals. All too frequently faculty, students, and staff focus primarily on professional goals rather than on the welfare of the University. In part, because of the very nature of academic inquiry, students and faculty tend to view their roles more as critics of the University rather than members of the Michigan family. We need to continue efforts to engage the University community in both discussions and active participation in determining the future of the institution.

• Establishing a Sense of Pride In, Respect For, Excitement about, and Loyalty
to the University of Michigan (pending): We need to re-establish a sense of pride in, respect for, excitement about, and loyalty to the University of Michigan. The transformation agenda is intended to involve more actively faculty, staff, and students, seeking their engagement in determining the future of the University. Beyond this, we will need a sophisticated strategic communications effort to give members of the University a better understanding of the challenges, opportunities, and responsibilities facing the University.

4. Capacity for Change:

• Making the Case for Change (in place): Our first objective must be to develop a shared vision for the future of the University. This should include the development of a compelling mission statement, along with an assessment of the challenges, opportunities, and responsibilities facing the University in the years ahead. As the first step in this process, extensive discussions and planning exercises were launched involving faculty, staff, and Regents of the University. Discussions were also held with leaders of higher education and society more broadly. This dialogue is now broadening to include other segments of the University community, including additional faculty, staff, students, and alumni, as well as an array of our external constituents.

• Removing Barriers to Change (pending): Universities, like most large, complex, and hierarchical organizations, tend to become bureaucratic, conservative, and resistant to change. We have become encrusted with policies, procedures, committees, and organizational layers that tend to discourage change, creativity, and risk-taking. We must act to streamline processes, procedures, and organizational structures to enable the University to better adapt to a rapidly changing world. To this end we will soon launch a "process inventory" of the University to identify and remove barriers to change. As part of this effort, we will analyze policies concerning personnel (both faculty and staff), resource allocation, and program review and modification.

We will continue to develop the capacity for change by re-engineering processes, policies, procedures, and practices to achieve greater flexibility and more responsiveness. Of particular concern here will be modernizing our personnel policies and tackling the difficult issue of faculty tenure and appointment practices. We also must develop more capacity to make programmatic changes consistent with institutional priorities (e.g., a redesign of the program discontinuance policies).

- Protecting the Autonomy of the University (pending): One of the more important characteristics of the University is its constitutional autonomy, as vested in the Board of Regents, which allows the University to control its own destiny and adapt to change. Unfortunately, in recent years this autonomy has come under attack from a number of quarters. Michigan's sunshine laws, now regarded as among the most intrusive in the nation, have jeopardized the operation of the University and its selection of leadership. Both the Governor and the Legislature have attempted to dictate key policies of the institution, including tuition, non-resident enrollments, and academic focus. Further, there has been a concerted effort by the media to push the University toward mediocrity that reflects a broader populist, anti-intellectual strain appearing in parts of our society. The University must not only vigorously resist these threats to its autonomy, but actively seek ways to re-establish its capacity to control its own destiny.

- Developing Spires of Excellence (in progress): While the breadth and capacity of our programs will continue to be of concern, we believe that the University's primary emphasis in the decade ahead should be on program quality. Resource constraints will require us to build "spires" of excellence in key fields, rather than try to achieve a uniform level of lesser quality across all of our activities. Only by attempting to be the best in key fields can we establish appropriate levels of expectation and achievement.

It must be stressed here that we do not propose a goal of focusing the resources of the University to build a few isolated spires of excellence, in the manner of a small liberal arts college, for example. Nor do we accept models which distribute resources to achieve a uniform level of necessarily lower quality across all programs. Rather, we believe that within each of our academic units — our schools, departments, centers, and institutes — we should seek to build a number of spires of focused excellence. In other words, the general level of excellence in each of our academic units will be achieved through the development of a series of sharply focused peaks of excellence within the units. Thus even for those programs to which we are unable to provide the resources to be absolutely first rate, we would expect to achieve some peaks of extraordinary excellence through the focusing of resources in selected areas. We should continue to make every effort to avoid mediocrity; but constrained resources imply that we will have some areas that are very good as opposed to excellent.

Key in this will be developing the capacity to focus resources and to prune or even discontinue programs. The current policies and procedures of the University which make such efforts difficult, if not impossible, should be revised and streamlined.

- Restructuring Organization and Governance (in progress): As a third class of initiatives, it will be important to continue to explore alternative corporate structures for the diverse range of University activities. The current organization of the University into departments, schools and colleges, and various administrative units is largely historical rather than strategic in nature. To some degree it is more a byproduct of our incremental style of resource allocation, in which the presumption is made that units and activities continue unless a very good case can be made for doing something else, rather than applying a conscious strategy or intellectual objectives. As we approach a period in which major, rapid transformation will be the order of the day, we must assess whether such existing organizational structures are capable of such transformations. Most evidence suggests that while these units are capable of modest internal change, they generally feel threatened by broader institutional change and will strongly resist it.

We therefore need to consider alternative structures which can not only accept and adapt to change, but to some degree, can actually stimulate it. Indeed, many companies reorganize quite frequently simply to stimulate change and generate fresh perspectives. We seek organizations capable of releasing the creative energies of people. For example, we will work to create more University-owned subsidiary corporations similar to M-Care in our health system development. We also are exploring the possibility of creating more partnerships with independent foundations such as the Davidson Institute and the Howard Hughes Medical Research Institute. The involvement of the Board of Regents will be critical in all of these activities.

As the University continues to grow to serve the needs of a knowledge-driven society, we must evolve more sophisticated and responsive organizational, management, and governance structures. For example, it is clear that the present organization of our schools and colleges is increasingly incompatible with intellectual, human, or financial resource management goals. Our administrative organizations also must be restructured to better support the multiple missions of the University. With the appearance of more University-owned subsidiaries to provide services, we may need to experiment with alternative corporate structures such as holding company models.

• High-performance Workplace Strategies (in progress): We need to help all units of the University to move toward more progressive work environments and practices. Examples include moving away from rigid, highly compartmentalized job definitions, allowing more flexible workplace experiences, stressing staff career development counseling and educational opportunities, and utilizing incentive reward systems.

• Re-engineering with Information Technology (in progress): We have only scratched the surface in our application of information technology to the activities of the University. In particular, the rapid evolution of networking and communications technology will release the University from the constraints of space and time, permitting students, faculty, staff, and external constituents to interact with our programs from any place at any time. This technology will permit us to re-engineer the work of the University to achieve higher quality and efficiency. It also should provide better information to support strategy development and decisions.

• Renegotiating the Faculty Contract (pending): One of the most difficult challenges to institutional change results from the nature of faculty appointments. While tenure and the disappearance of mandatory retirement policies are frequently noted as barriers to flexibility, perhaps even more challenging is the extraordinary degree of disciplinary specialization and the narrowness of faculty roles resulting from our current hiring and promotion policies.

• Redefining the State Contract (pending): Over the past three decades, state appropriations have eroded to the point today in which the state is only a relatively minor shareholder in the support of the University (11%). Perhaps it is time to renegotiate the University's "contract" with the people of Michigan, redefining just what services the state should expect and what kind of control it can exert for the ever-diminishing support it currently provides.

Cross Cutting Themes

There are several important themes which cut across the four goals associated with Vision 2017. We propose each of these cross-cutting themes be address by a series of additional strategic initiatives:

> Educational Transformation:
>
> - The "University College" for undergraduate education (in progress)
> - The Gateway Campus (pending)
> - Developing the student living/learning environment (in progress)
> - Linkages between professional schools and undergraduate education (pending)
> - Restructuring the Ph.D. (pending)
> - Continuing education and "just in time" learning (in progress)

There is no more compelling—nor difficult—challenge facing the University than reaffirming its commitment to undergraduate education. We must develop an undergraduate experience that draws on all of the University's resources to prepare our students for the twenty-first century. While some important steps have been taken by individual colleges, these have been largely efforts to improve upon the current paradigms of undergraduate instruction. Far more important—and far more challenging—will be those efforts to create new paradigms for undergraduate education that weave together the multiple activities of the University—teaching, research, and service—with student academic programs and residential life.

Michigan must develop a more coherent academic program for all undergraduates, reducing the amount of specialization offered in degree programs, and striving to provide instead a more general liberal learning experience. We should rapidly expand experiments in pedagogical alternatives to classroom learning, including collective learning experiences, the use of research and/or creative projects, and tighter linkages between undergraduate education and our professional schools. A more comprehensive undergraduate experience will require a major restructuring of the student living environment and those programs and facilities supporting extracurricular activities. The rapid expansion of distance learning also will have significant implications for the evolution of the Ann Arbor campus. Key in this effort will be the successful planning, funding, and construction of the Gateway Campus, which will become the focal point for the general educational experience of the first two years.

We should make a concerted effort to re-examine the nature and implementation of our various graduate and professional programs. Of particular concern has been the increasing specialization and time required for the Ph.D. degree. Although our professional degree programs have been generally more responsive to the changing nature of our society, we need to develop a closer linkage between these programs and undergraduate education, recognizing that a paradigm of lifetime learning will be required of our graduates. In this regard, more thought needs to be given to continuing education activities, e.g., "just-in-time" learning experiences that provide professionals with the knowledge they need as their careers evolve.

<u>Intellectual Transformation</u>:

- Developing more flexible structures for teaching and research (pending)
- Lowering disciplinary boundaries (pending)
- Integrative facilities (ITIC, Gateway Campus) (in progress)
- CR&D Operations ("skunkworks") (in progress)
- The New School (in progress)
- The New University (in progress)

The University should take steps to allow its students and faculty to better respond to the extraordinary pace of intellectual change. Key in this will be breaking down the constraints posed by disciplinary organizations—e.g., academic units such as departments, schools, and colleges, and academic degree programs at the undergraduate, graduate, and professional level. To allow faculty and students to teach, study, and learn where the need and interest is highest, we need greater flexibility. In this regard, we should develop more flexible structures (e.g., centers and institutes) that span disciplinary boundaries. More faculty appointments should span multiple disciplines—perhaps even spanning the entire University. More effort should be made to coordinate faculty appointments, academic programs, research activities, and resource allocation among academic units.

Of particular importance will be the development of facilities that integrate the activities of schools and colleges. For example, ITIC is designed to be a "media union," uniting the teaching and scholarship of the schools and colleges of North Campus—Engineering, Music, Art, and Architecture and Urban Planning. The infrastructure will be based on a sophisticated information technology environment. The Gateway Campus will unite all of the faculty of the University, along with its principal performance centers and exhibit museums in undergraduate education.

One of the most exciting projects that will receive attention throughout the remainder of this decade is "the New University." The idea is to create an experimental "university within the University," a prototype or test bed for possible features of a twenty-first century university. An academic unit consisting of students, faculty, and programs, the "New U" would provide the intellectual and programmatic framework for continual experiment. This could be a highly interdisciplinary unit with programs organized around such overarching themes as global change, social infrastructures, and economic transformation. It would span undergraduate, graduate, professional, and continuing education, bringing together students, faculty, and alumni to pool knowledge, work in teams, and address real problems. It would be a crucible for evolving new disciplines through interdisciplinary collaboration. Its programs would promote the transfer of knowledge to society through collaboration, internships, and exchanges of students, faculty, staff, and professionals. The "New U" would also be a place to develop new structural models for the University, to experiment with lifelong education, new concepts of service, faculty tenure, leadership development, and community building.

<u>The Diverse University</u>:

- Articulating the case for diversity (in place)
- The Michigan Mandate (in place)
- The Michigan Agenda for Women (in place)
- The World University (in progress)

We must sustain and broaden our commitment to creating a university characterized by great diversity. While we have made great progress in achieving racial and ethnic diversity through the Michigan Mandate, this must remain among the highest priorities of the University. So too, the newly launched Michigan Agenda for Women will be of great importance to the University and to broader society, and we must be steadfast in our commitment to its success. As we move ahead, we must also engage the campus community in a broader dialogue concerning the importance of diversity to the future of the institution.

As with biological organisms or ecosystems, the diversity of the University may be the key characteristic that will allow it to flourish in a rapidly changing environment. Diversity goes far beyond racial and ethnic representation to include almost every aspect of the human condition: race, gender, nationality, background, and beliefs. Our challenge will be to build an institution in which people of different backgrounds and cultural characteristics come together in a spirit of respect and tolerance for these differences while working together to learn and to serve society.

While sustaining our commitment to diversity through the Michigan Mandate and the Michigan Agenda for Women, we expect to broaden these efforts to build the character of the institution as a true "world university," attracting students and faculty from around the world and educating our students to become true citizens of the world.

<u>The Faculty of the Future</u>:

- Definition and role of the faculty (in progress)
- Alternative faculty appointment and reward structures (pending)
- The balance between long-term and flexible staff (pending)
- Redefining the "faculty contract" (pending)

The changing nature of the university—and the society it serves—compels us to think carefully and expansively about the nature of the faculty of the University in the years ahead. For example, we need to discuss the definition and role of the faculty, particularly in the face of the great and growing diversity in missions and activities of our various academic units (e.g., the contrast between clinical departments in medicine and performance departments in music). As the character of the faculty and its activities evolves, we must rethink the privileges and responsibilities of faculty members, including the nature of appointments, tenure, rewards, and retirement. These will be difficult but important discussions that should occur both within and among major research universities.

We will continue our efforts to work with the faculty to understand its future role, opportunities, and responsibilities. For example, with the end of mandatory retirement and the increasing pace of intellectual change, it is clear that the idea of the faculty "contract" with the institution needs to be reconsidered. Is the current faculty career model still viable (i.e., a three-rank promotion structure accompanied by academic tenure in the advanced stages)?

<u>Serving a Changing Society</u>:

- Evolution of the UM Health System (in progress)
- University enterprise zones (in progress)
- Research applied to state and national needs (in progress)
- UM involvement in K-12 education (in progress)

There are several ongoing initiatives related to the University's service role. The evolution of the University of Michigan Medical Center into a statewide health system will require attention. Of particular importance will be the determination of the appropriate form of leadership/governance for the Medical Center and its associated academic units.

The University will launch a series of institution-wide research/service projects aimed at addressing issues of major state and national significance including global change, human capital, health care, and the digital society. We are also moving ahead with a series of actions aimed at regional economic development as part of the "university enterprise zone" effort. On a broader scale, the role of the University (and Ann Arbor) as an economic engine of the Midwest will become increasingly important.

Finally, it is essential that the University develop and implement a broader strategy concerning K-12 education. Beyond the question of charter schools, it is clear that the University has a responsibility in this area. Although hundreds of faculty and staff are already deeply involved with public schools, these efforts are uncoordinated and rarely recognized. We need to establish a University-wide strategy.

As it has throughout its history, the University must acknowledge its public nature and be attentive to the needs of the society it serves. While it is important that these efforts align naturally with the University's academic programs and objectives, it is also clear that we will be asked in the years ahead to consider a very broad array of activities in support of our public mission. Developing the capacity to assess such opportunities and responsibilities, and then make rational decisions about which to accept, will be important. We must also develop the capacity to say "no" when a societal request either does not align well with our academic mission or could be better performed by other institutions.

<u>Preparing for the Future</u>:

- Next Generation Leadership (in progress)
- Campus evolution (in progress)
- New market exploration (in progress)
- The cyberspace university (in progress)
- The alumni university (in progress)
- The world university (in progress)

Selection and appointment of leaders throughout the University who have great vision, energy, and a sense of adventure will be key to preparing for the future. Simply selecting leaders to maintain the status quo will not be adequate. We must build a leadership team that is committed to the necessary transformations in the University and that relishes the role of leading during a time of challenge and change.

High priority must be given to finishing the effort to "rebuild" the Ann Arbor campus. Ongoing projects must be managed to completion, and new projects must be launched to complete the last stages of the renovation of Central Campus. While we do not anticipate the need for a great deal of new construction in the latter half of the decade, there will be a few projects of great importance, including the Gateway Campus. We also must continue our efforts to build up our financial resources to eliminate the deferred maintenance backlog and sustain our rapidly improving physical plant.

Our campus facilities will need to continue to evolve so we can better serve our various units and the surrounding community. For example, the development of the outpatient care center in northeast Ann Arbor will be a high priority. We also need to acquire or develop additional facilities in south Ann Arbor to accommodate the business and administrative operations of the University, and the University will continue to expand its off-campus activities, both through extension services and computer networking.

We must examine the changing educational needs of our society to better understand the changing marketplace for higher education. It will be crucial to understand the appropriate rôle for the University in distance learning and lifetime education.

It also will be important to explore and develop new paradigms of teaching, research, and service if we are to serve a rapidly changing society. It is clear that in a knowledge-driven society, we need to both increase and broaden the educational services we provide. For example, in a future in which lifetime education becomes a necessity for a high quality of life, the University must become involved to some degree with the full continuum of education, from K-12 education through our traditional degree programs at the undergraduate, graduate, and professional levels to continuing education and intellectual enrichment. In this regard, it will also be necessary to explore educational product differentiation, e.g., contrasting between residential (campus-based) educational programs and distance learning.
Of particular importance will be the exploration of paradigms for offering educational services based on sophisticated information technology networks. Because of its leadership role in building and establishing the Internet, the University is well-positioned to become a leader in developing the paradigm of a "cyberspace" university, in which students, faculty, and alumni are linked together worldwide.

Over this longer time frame, it is clear that there will be a significant restructuring in higher education. Anticipating this, we are exploring and establishing strategic alliances with regional institutions (e.g., the Big Ten universities), national institutions (e.g., the Tanner Group), and international institutions (e.g., Europe and Asia). It will also be important to explore alliances with other knowledge-based institutions in the public and private sector (e.g., software and entertainment companies or national laboratories and institutes).
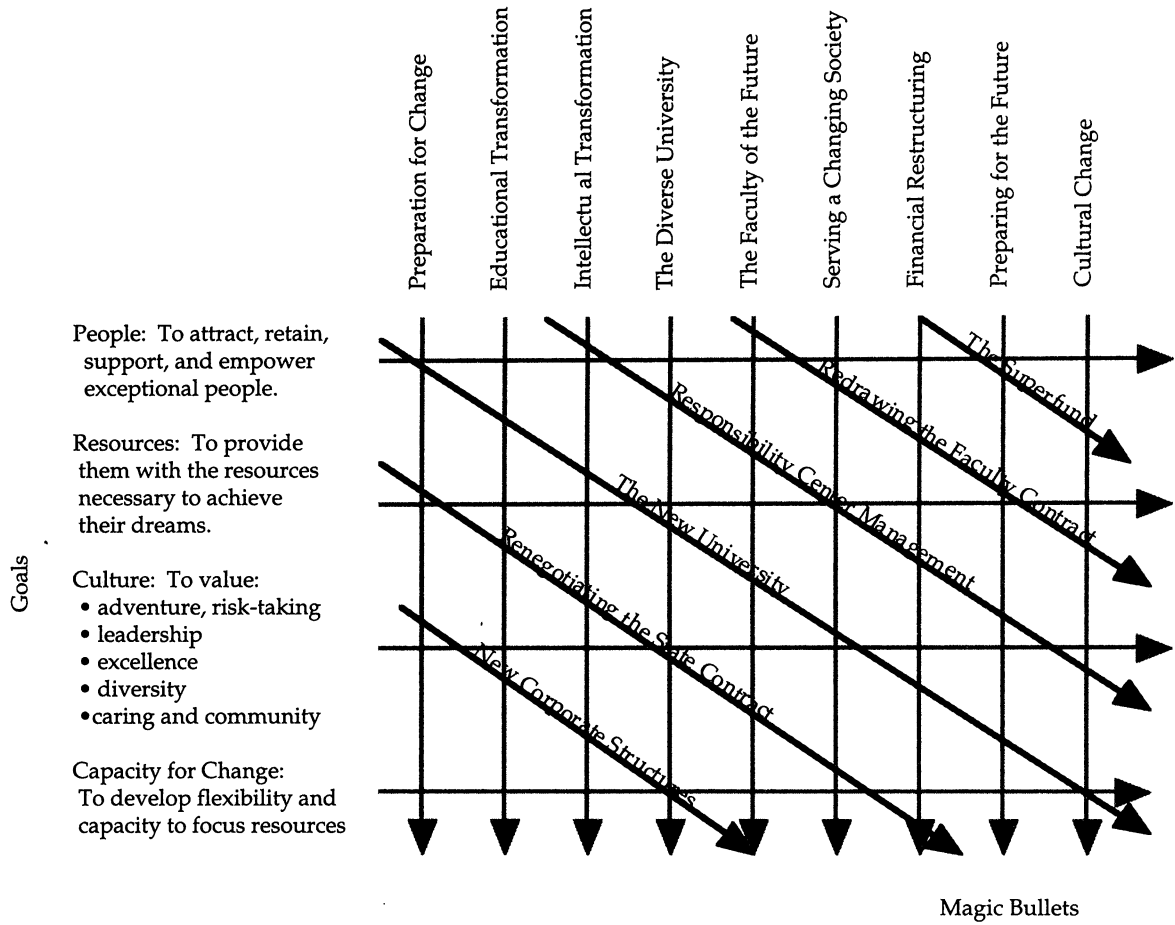
Magic Bullets

There are two general approaches to changing organizations: In "command and control" approaches, one attempts to initiate and sustain the process through top-down directives and regulation. This approach has limited utility in large organizations. The alternative approach, more appropriate for large, complex organizations such as the University, is to create self-sustaining market dynamics, e.g., incentives and disincentives, that will drive the transformation process. Hence, for each of our major strategic thrusts, we need to identify highly targeted actions, "magic bullets" that create incentives and disincentives and ignite the sparks necessary for grass-roots change. This is where the real creativity in the design of the transformation is needed.

We have tentatively identified the following focused actions as magic bullets:

- The University College ("A Michigan Education")
- The New University
- The Diverse University
- The Cyberspace University
- The Creative University
- The World University
- Responsibility Center Management
- Restructuring of the UM "Corporate" Organization
- Redefining the Faculty Contract
- Redefining the State Contract
- Next Generation Leadership
- The Superfund and Merit Scholarships
- Research Applied to National and State Needs
- Academic Outreach
- Alignment of faculty/staff incentives with University priorities

The diagram on the following page provides a sense of how the strategic initiatives, cross-cutting themes, and magic bullets associated with Vision 2017 relate to one another:
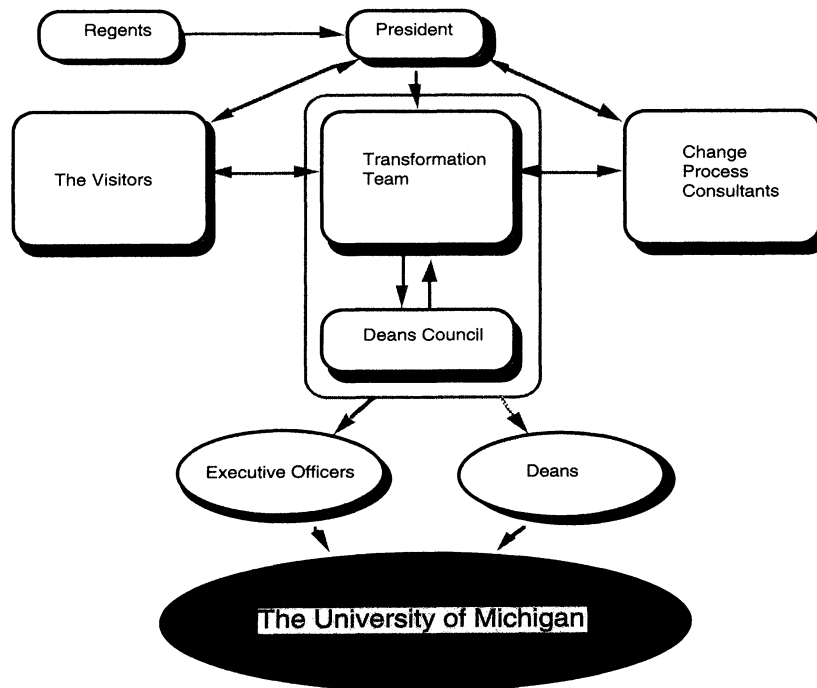
Transformation Areas

Preparation for Change   Educational Transformation   Intellectu al Transformation   The Diverse University   The Faculty of the Future   Serving a Changing Society   Financial Restructuring   Preparing for the Future   Cultural Change

Goals

People: To attract, retain, support, and empower exceptional people.

Resources: To provide them with the resources necessary to achieve their dreams.

Culture: To value:
• adventure, risk-taking
• leadership
• excellence
• diversity
•caring and community

Capacity for Change: To develop flexibility and capacity to focus resources

The Superfund

Redrawing the Faculty Contract

Responsibility Center Management

The New University

Renegotiating the Staff Contract

New Corporate Structures

Magic Bullets

39

Tactical Implementation

Much of the preparation for this transformation agenda has already occurred, including the launch of several of the major strategic thrusts. The speeches and writings of the president have focused on institutional change for the past several years. A series of planning groups, both formal and ad hoc, have met to discuss the future of the University, including the Strategic Planning Teams of the late 1980s, the Futures Group in various guises, ad hoc meetings of faculty across the University, the Prahalad discussions, and several joint retreats of executive officers (EOs), deans, and faculty leaders. A Presidential Advisory Committee has met regularly on strategic issues for several years. A special group of leaders and friends of the University known simply as The Visitors meets quarterly with the leaders of the University to evaluate and shape our transformation effort. Joint luncheon discussions involving the deans and EOs have focused on the change process. Extended strategic discussions with the Board of Regents have been initiated and will continue through the transformation effort.

Key steps in executing the transformation agenda include the following:

Step 1: The Leadership Team
It is critical that the senior leadership of the University buy in to the transformation process and fully support it. The leadership for the transformation effort should be provided by a team of executive officers, deans, and directors, augmented by an advisory group of faculty experts on organizational change and a board of visitors. A possible leadership structure is diagrammed below:

Step 2: Involve the Regents in the Transformation Effort

It is essential that the Regents play an active role in the design and execution of the transformation process. Key elements will include informal discussions with the Regents, both one-on-one and in public sessions; joint retreats with the executive officers on key strategic issues; joint meetings with key University visiting groups such as the President's Advisory Council; and the preparation of position papers to provide the necessary background for key decisions that the Regents must make as the transformation effort moves forward.

Step 3: The Use of Advisory Bodies

In tandem with the leadership team building effort, form and begin to use the advisory groups, including The Visitors, the President's Advisory Council, and the Change Group.

Step 4: Implementation of Strategic Communications Efforts

Effective communication throughout the campus community will be absolutely essential for the success of this effort. Since there is extensive experience in the design and implementation of such communications programs in the private sector, we might want to hire private consultants to help design and execute this effort.

Step 5: Launching Presidential Commissions

After the Transformation Team has identified the key strategic thrusts, we would form a series of presidential commissions to study the issues associated with these initiatives and develop specific recommendations. These commissions should be chaired by our most distinguished and influential faculty and populated with change agents. Commissions we intend to launch in year ahead include:

- The Faculty of the Future
- The Intellectual Organization of the University
- Simplifying Processes, Procedures, and Policies
- Attracting and Nurturing the Extraordinary (students and faculty)

Step 6: Igniting the Sparks of Transformation

As we have noted, key in the transformation effort will be the use of highly-targeted actions, "magic bullets," to create forces for change at the grass-roots level. Several of these efforts have already been launched, e.g., the Michigan Mandate, the Michigan Agenda for Women, and Responsibility Center Management.

Step 7: Streamlining Processes and Procedures

Universities, like most large, complex, and hierarchical organizations, tend to become bureaucratic, conservative, and resistant to change. They become encrusted with policies, procedures, committees, and organizational layers that discourage risk-taking and creativity. It is important to take decisive action to streamline processes, procedures, and organizational structures to enable the University to better adapt to a rapidly changing world.

Step 8: The Identification and Activation of Change Agents

It is important to identify individuals at all levels and in various units of the University who will buy into the transformation process and become active agents on its behalf. In some cases these will be our most influential faculty or staff. In others, it will be a group of junior

faculty. In still other situations, these agents for change may be key administrators. We must design a process to identify and recruit these individuals.

Step 9: Selecting Leadership for a Time of Change

Every opportunity should be used to select leaders at every level of the University—executive officers, deans and directors, chairs and managers—who not only understand the profound nature of the transformations that must occur in higher education in the years ahead, but who are effective in leading such transformation efforts.

Step 10: Focusing the Transformation Agenda

The transformation agenda we propose, like the University itself, is unusually broad and multifaceted. Part of the challenge will be focusing members of the University community and its multiple constituencies on those aspects of the agenda which are most appropriate for their attention. For example, it is clear that the faculty should focus primarily on the issues of educational and intellectual transformation and the faculty of the future. The Regents, because of their unusual responsibility for policy and fiscal matters, should play key roles in the financial and organizational restructuring of the University. Faculty and staff with strong entrepreneurial interests and skills should be asked to guide the development of new markets for the knowledge-based services of the University.

Step 11: Green-field Initiatives

Experience has revealed the great difficulty in persuading existing programs of an organization to change to meet changing circumstances. This is particularly the case in a university, in which top-down hierarchical management has limited impact in the face of the "creative anarchy" of the academic culture. One approach is to identify and then support "islands of entrepreneurism"—those activities within the University which are already adapting to a rapidly changing environment. Another approach is to launch new or "green-field" initiatives which are designed from the beginning with the necessary change elements. By providing these initiatives with the necessary resources and incentives, faculty, staff, and students can be attracted into the new activities. Those initiatives which prove successful will grow rapidly, and if designed properly, draw resources away from existing activities resistant to change. In a sense, this green-field approach should create a Darwinian process in which the successful new initiatives devour older, obsolete efforts, while unsuccessful initiatives are unable to compete with ongoing activities capable of sustaining their relevance during a period of rapid change.

Benchmarking and Assessment

The University should develop appropriate metrics capable of measuring the impact of the transformation process and the progress toward goals. It also needs to develop a better capacity to benchmark itself against peer universities and organizations in the public and private sector. Of particular importance will be comparisons of costs, productivity, and quality.

We need the capacity to measure attitudes both on campus and beyond. We have begun developing the capacity to do polling to ascertain public attitudes about the University, but we must develop a program of sustained polling, internally and externally.

Concluding Remarks

There is an increasing sense among leaders of American higher education and on the part of our various constituencies that the 1990s will be a period of significant change on the part of our universities if we are to respond to the challenges, opportunities, and responsibilities before us. The task of transforming the University to better serve our society and to move toward the visions proposed for the century ahead will be challenging. Perhaps the greatest challenge of all will be the University's very success. It will be difficult to convince those who have worked so hard to build the leading public university of the twentieth century that they cannot rest on their laurels and that the old paradigms will no longer work. The challenge of the 1990s is to reinvent the University to serve a new world in a new century.

The transformation of the University in the years ahead will require wisdom, commitment, perseverance, and considerable courage. It will require teamwork. And it will also require an energy level, a "go-for-it" spirit, and a sense of adventure. But all of these features have characterized the University during past eras of change, opportunity, and leadership. After all, this is what the Michigan spirit is all about.

This is what it means to be "the leaders and best."

Appendix: The University's Agenda

The Agenda for the Past Five Years

Financial and organizational restructuring
Decreasing financial dependence on state
M-Quality
UM Hospitals Transformation
Asset management programs
Financial integrity (Aa1)
Human Resources reorganization

Achieving leadership as a research university
Improving the research climate on campus
Leadership in national research policy
Research incentive program

Educational transformation
Revisions of introductory courses
Gateway Seminar series
Emphasis on teaching in faculty reward
Professional curriculum redesign

Campus life
Campus safety initiatives
Student Rights and Responsibilities Code
Substance Abuse Task Force
Student living/learning environment
Intercollegiate Athletics

The diverse university
The Michigan Mandate
The Michigan Agenda for Women
Access for the Physically Challenged
Bylaw 14.06
World University themes

Rebuilding the university
Medical Center Transformation
Completion of North Campus
Renovation of Athletic Campus
Rebuilding of the Central Campus
Deferred maintenance program
UM-Flint
UM-Dearborn

The Age of Knowledge
"Wiring the campus"
NSFnet —> Internet
Mainframe —> Client-Server Technology

Strengthening the bonds with external constituencies
State relations restructuring
Federal relations restructuring
Public and media relations
Community relations

The Agenda for the Next Several Years

Preparation for change
- Vision Statement, Transformation Plan
- Process Inventory

The capacity for change
- Re-engineering processes, policies, and practices for flexibility
- Modernizing personnel policies
- Faculty promotion and tenure
- Develop capacity to discontinue programs
- Evolving to more sophisticated management structures
- Holding company models
- Restructuring administrative organizations
- Restructuring faculty governance
- Re-engineering with information technology

Educational transformation
- Exploration of new paradigms
- Teaching + research + service paradigm
- Shifting from specialized degrees to "liberal learning"
- Explore alternatives to classroom learning
- Linkages between professional schools and UG education
- Involvement of entire fauclty in UG education
- Student living/learning environments
- The Gateway Campus
- The "University College" for Undergraduate Education
- Restructuring the Ph.D. (and Rackham)
- Continuing education and "just-in-time" learning

Intellectual transformation
- Integrative structures (ITIC, Gateway Campus, virtual)
- Developing more flexible structures for teaching and research
- Broadening faculty appointments across disciplines
- Alternative models for teaching and scholarship
- The "LS&A Challenge"
- The New University

The diverse university
- A general strategy for diversity
- The Michigan Mandate (continued)
- The Michigan Agenda for Women (continued)
- The World University

The faculty of the future
- Launch discussion on definition and role of faculty
- Promotion, tenure, and retirement
- Rethink privileges and responsibilities of faculty
- The faculty contract
- The balance between long-term and flexible staff
- Distance faculty appointments

Serving a changing society
> Evolution of UM Medical Center
> Leadership/governance of Medical Center
> University enterprise zones
> Research Applied to State Needs
> Research Applied to National Needs
> UM involvement in K-12 education
> Serving a knowledge-intensive society
> Developing the capacity to say "no"

Financial restructuring
> Accommodating to the virtual disappearance of state support
> Protecting the public character of the University
> All-funds budgeting and management
> Responsibility Center Management
> Competition for internal services
> Development of venture capital
> Exploration of alternative corporate structures
> Foundation development
> Successful completion of Campaign for Michigan
> Protecting the autonomy of the University

Cultural change
> Risk-taking, fault tolerance, adventure, and excitement
> Alignment of responsibility and authority
> Alignment of privilege and accountability
> Balancing decentralization with University goals
> Achieving a commitment to community, tolerance, and respect
> Establishing a sense of pride in, respect for, excitement about,
> > and loyalty to the University of Michigan!

Preparing for the future
> Next generation leadership
> Completion of effort to rebuild Ann Arbor campus
> Campus evolution
> East Medical Campus
> South Campus
> Off-campus networking and extension
> Increasing and broadening educational services (Catholepistemiad)
> New market exploration
> The cyberspace university
> Strategic alliances

Appendix: Possible Magic Bullets

Those particular actions/themes that are candidates to become "magic bullets," i.e., creating strong market forces at the grass-roots level to drive change, are listed below:

- The University College ("A Michigan Education")

- The New University

- The Diverse University

- The Cyberspace University

- The Creative University

- The World University

- Responsibility Center Management

- Restructuring of the UM "Corporate" Organization

- Redefining the Faculty Contract

- Redefining the State Contract

- Next Generation Leadership

- The Superfund and Merit Scholarships

- Research Applied to National and State Needs

- Academic Outreach

- Alignment of faculty/staff incentives with University priorities

Fall 1995