

State of the University Address

Introduction

It therefore seems appropriate that in my first State of the University address I depart from the usual tradition of talking about "what is"...and instead focus on "what might be"...

Themes of the Future

For some time there have been growing signs that higher education in America would be facing a period of very unusual challenge...but also unusual responsibility and opportunity...due to changes in American society.

Think about it for a moment...

A few themes of the future...

The students we are educating today will spend the majority of their lives in the 21st century...

Yet most of us...and our faculties...are products of the 20th Century...

Furthermore, the structure of the American university as we know it today is a product of the 19th Century!

Indeed, the basic organizational structure of the modern university--the academic department, the undergraduate college, the graduate school, the professional school, the semester credit hour--were all invented at this time, coinciding with the industrial revolution. Indeed, even the synchronous, serial approach to UG education were similar to the early production lines. Ironically enough, today universities are the last institutions to retain the factory system.

Perhaps Higher education is among the last relics of the industrial age!!!

This raises a serious question:

Is higher education in America backing into the future, so preoccupied with the past and the present that we have been unable to develop a vision to guide the education of the citizens of the 21st Century that now study on our campuses?

America is changing...

Our advanced industrial nation--the American we have taken for granted for more than a generation--is changing.

Our society is changing; More people are old, fewer are young, more come from minority groups.

Our industry is changing: We are not the world economic leader we were for so long, but a competitor with other industrial nations.

Are we really educating for the future...

- i) A future in which our nation becomes a truly multicultural society, with a cultural, racial, and ethnic diversity that will be truly extraordinary in the history of our civilization...
- ii) A future in which America will become "internationalized"... in which every one of our activities must be viewed from the broader context of participation in the global community... as America becomes a "world nation", with ethnic ties to every part of the globe...
- iii) A future in which we rapidly evolve from a resource- and labor-intensive society to a knowledge-intensive society, in which intellectual capital...educated people and their ideas...become the keys to our prosperity, security, and well-being.

If these indeed do turn out to be dominate themes of 21st Century America, then it is apparent that our universities

will face some major challenges that will almost certainly drive very dramatic changes in the very nature of the research university.

In such a future, I believed it was simply not sufficient for the University to respond passively to these opportunities, challenges, and responsibilities. Rather, I believe that it was time that the University seized control of its own destiny...that it chart a course to take it into the 21st Century.

And that has been part of my job the for last several years... For while one generally thinks of the Provost as the chief operating officer of the University, in fact, much of my time has been spent leading a process designed to look far into the future...10, 20, 30 years or more...to determine the possibilities for this University...what it is...what it could become...indeed, what it must become

As they say in the jargon of planning, we've been spending a good deal of time "futuring"...gazing into the crystal ball in an effort to determine just where our university should head in the years to come.

Challenges

1. Diversity and pluralism

There seems little doubt that America of the 21st century will probably be the most pluralistic, multicultural nation on earth...and perhaps in history...

Note: It is important to realize here that 21st Century America will NOT be a mixing pot in which all cultures are homogenized into a uniform blend.

Rather, it will be pluralistic...composed of peoples of vastly different backgrounds, cultures, and beliefs...peoples who seek to retain their cultural roots...to maintain their differences.

America is changing rapidly...

By 2020, 35% of Americans will be Black or Hispanic.

By 2000, one-third of college age students will be from these groups...

By 2000, 47% of our school children (K-12) will be Hispanic or Black (today 25% are)

Today America has 26.5 million Blacks and 14.6 million Hispanics; by 2020, while the white population will be roughly the same, there will be 44 million Blacks and 47 million Hispanics.

In the second half of 21st Century, Hispanics will become the largest population group in America

Those groups we refer to today as minorities will become the majority population of our nation in the century ahead...just as they are today throughout the world.

Composition of college age population is also changing...

You've probably all memorized Harold Hodgkinson's data...

Today minorities comprise 14%...by 2000, 22% will be Blacks and Hispanics...by 2020, 30%...

By the turn of this century, one-third of college age students will be underrepresented minorities.

Indeed, by the turn of the century, over 50% of K-12 students will be children of color (in California, over 50% will be Hispanic)

Indeed, by the late 21st Century, Hispanics will the largest

ethnic group in America

Less than 15% of new people entering the labor force of the 1990s will be white males.

NOTE: We must make special efforts to expand participation by these groups...not just because that is good social policy, but (because we cannot afford to waste their talents!

Our nation will face a challenge of diversity and pluralism in the years ahead that will determine our strength

¥ - and vitality .

In summary, then

America of the 21st century will be the most pluralistic, multicultural nation on earth.

¥ +#†In this future, full participation of underrepresented minorities

will not be just a matter of equity and social justice.

It will be the key to the future strength and prosperity

ulations.

America cannot afford to

head 5 - cultural richness, c

d leadership.

If we do not create a nation that mobilizes the talents

of all our citizens, we are destined for a diminished

role in the global community and we will have

failed to fulfill the promise of democracy.

This is probably the most serious challenge

ge facing American

society. While it is true that universities cannot solve this problem alone, they must not use this fact as an excuse for doing nothing.

As both a microcosm and leader of society at large,

higher education has a special challenge ahead - responsibility to develop effective models of multicultural, pluralistic communities.

Composition of college age population is also changing...

You've probably all memorized Harold Hodgkinson's data...

Today minorities comprise 14%...by 2000/ 22% will be

Blacks and Hispanics...by 2020, 30%...

By the turn of this century

one-third of college age students will be underrepresented minorities. Indeed, by the turn of the century, over 50% of K-12 students will be children of color (in California, over 50% will be Hispanic)

Indeed, by the late 21st Century, Hispanics will be the largest ethnic group in America

Less than 15% of new people entering the labor force of the 1990s will be white males.

NOTE: We must make special efforts to expand participation by these groups...not just because that is good social policy, but because we cannot afford to waste their talents!

In particular, we face the challenge of reaching

out to increase the participation of those racial, ethnic, and cultural groups not adequately represented among our students, faculty, and staff--of taking "affirmative action" to compensate for the inequities faced by these groups in our society.

But simply providing access and encouraging participation

is not enough. We face the challenge of building supportive environments which embrace, and sustain diversity as essential to the quality of our missions of teaching, research, and service.

We must strive to achieve new levels of understanding

tolerance, and mutual fulfillment for peoples of diverse racial and cultural backgrounds.

In a very real sense, in our effort to build the multicultural

university of the 21st Century, we are attempting to address the most urgent and difficult issue confronting our nation.

To make progress, we will need not only commitment

and support...we will need a strategy, a plan, designed to achieve fundamental and permanent change of our institution.

Action: The Michigan Mandate

Many of us have become firmly convinced that the ability of the University to achieve and sustain a campus community recognized for its racial, cultural, and ethnic diversity will determine not only our capacity to serve our state and nation and the world, but indeed will become the cornerstone of our efforts to achieve excellence in teaching, research, and service in the years ahead.

Hence, we are determined that the University of Michigan must commit itself to leadership in higher education by developing a model of what a pluralistic, multicultural university must be to serve our nation in the 21st Century.

We believe the University has a mandate to build a model of a multicultural community for our nation...an environment which is supportive of all individuals, regardless of race, creed, national origin, gender, or sexual preference...

Which values and respects and indeed, draws its strength from the rich diversity of peoples of different races, cultures, religions, nationalities, and beliefs.

We have learned that at Michigan through the racial tensions that have developed on our campus over

the past several years...just as they have on other campuses throughout America.

Unfortunately, it took several explorable incidents of racism on our campus to wake us up to the reality that the challenge university is!

ot

simply

successful affirmative action programs...

.highlight recruiting and retention and success./that is, access.

Our

challenge goes far beyond this...we're recognizing

by-achieving a highly pluralistic,

multicultural

community

in which we achieve a

level of understanding,

to establish a mutual respect for the highly diverse racial

and cultural background.

people leap

to respect and cherish one head 5 - another for their differences...yet, at the same

Hispanic students up by 54%

Native Americans by 113%

v) Total number of black!Error!

recruited this year are up by over 100%

vi) Some of our professional schools have had extraordinary success:

Medicine at 11% Black

Business MBA program at 15% Black

vii) Retention numbers are coming up (55% to 60%)...

highest rate among our peers, but still lagging behind majority students (70%)

viii) Racial harassment policy for students, faculty and staff

ix) Believe we are finally beginning to get people's attention...

As an aside, I would note that this year we estimate

we are putting over \$30 million a year into minority student and faculty recruitment and retention as well as into a broad array of programs designed to build a true multicultural community on our campus.

Hence, it should be obvious that responding to the

challenge of pluralism will require an extraordinary commitment on the part of our university...

and higher education more generally

Our challenge is not to make one group from many,

to blend together all cultures into a homogeneous mixture...but to build from many varying cultural, racial, and ethnic groups a truly multicultural community in which we share those common beliefs and values which bind us together.

All of us--faculty, staff, and students--must

recognize that the challenge of diversity is our challenge and our responsibility, and until we recognize and accept this both as individuc

o and as members of the University
community, we are unlikely to achieve our goals.

We can secure this future by setting aside

head 5 - confrontation and empty rhetoric, by seeking the understanding

that comes from working side by side, by engaging in

1 - thoughtful dialogue, and by standing firm in our

commitment to the creation of a pluralistic community on
the campus.

2. The Internationalization of America

Some signs...

Communications, travel, smaller world

Internationalization of commerce and industry...

Security and interdependence...

Nuclear weapons....

Some facts of life:

7-fold increase in international trade since 1970

Market for nearly all significant manufacturing industries
has become world-wide

70% of goods we produce now must compete against
merchandise from abroad

In slightly more than 5 years, US trade deficit has taken
us from the world's largest creditor to its largest
debtor nation.

The "shrinking globe" phenomenon suggests that understanding
cultures other than our own is necessary for good citizenship.

The fact is, a truly domestic US economy has ceased to exist.

Today, imports and exports represent about 10% of GNP...

70% of goods we produce compete directly with foreign goods.

Americans will no longer take their know-how and apply
it to low-cost natural resources from third-world
countries, turn it into products, and then sell it
back to them--as we do in a hierarchical economy.
Rather, we'll be only one member in a global
dynamic economy with tremendous network
interdependency between countries.

US is the destination of about half the world's immigrants

Probably 10 million this decade alone...

One-third of annual population growth is immigration

Indeed, now that native fertility rates have stood since
mid-1970s at 1.8 (below replacement level of 2.0),
immigration promises to become the main determinant
of future population variability

America is evolving into the first true "world nation",
shifting rapidly away from Eurocentricity into a society
with strong ethnic ties to all parts of the globe--
with a growing focus on the nations of the Pacific Rim.

Historically, Europe has been the center of economic

In the 21st Century, the Pacific Basin will be the center of economic
power...Japan, China, Southeast Asia, US, USSR will be the

4 - major economic players in world.

+ As you may have seen, David Gardner in his recent editorial in Science quotes one of his faculty, Robert Scalapino as referring to the "21st Century" as the "Pack Error!"

US is no longer self-sufficient or self-sustaining. We are not immune to the shocks of the world society. We have never been more vulnerable.

Appointment of AVP for International Affairs
 Among the University's many responsibilities and priorities, where does one rank our responsibility to the world at large, the global village? The concern for international relations, and commitment to crossing national boundaries in a spirit of inquiry and mission, has by now become so thoroughly institutionalized that Michigan cannot be viewed otherwise than as a genuine international center of learning.

At UM in 1987, 2,446 or 7% of total...

Taiwan-346
 Korea-325
 China-219
 India-144
 Japan-108
 Western Europe and Canada-418

80% (2,019) are in graduate programs...16.2% of our graduate total.

If the UM is to prepare to correctly position itself for an increasingly polycentric world it must begin to think more imaginatively, more strategically.

3. The Age of Knowledge

in America appears

to be shifting somewhat

in American higher education a variety of important roles.

- i) To provide an education for our citizens
- ii) To produce the scholars, professionals, and leaders needed by our society
- iii) To perform the research necessary to generate new knowledge
- iv) To provide service to society across a number of fronts that draw on our unique expertise
- v) and to act as an independent and responsible critic of society.

In the past the Land Grant created a paradigm

for American higher education, from which both individual students and the nation as a whole have benefited enormously

Yet, even as these traditional roles continue, one can now

discern an important shift in the priority given these roles for an important subset of higher education: the comprehensive research university.

Our traditional industry economy is shifting to a new

knowledge-based economy, just as our industrial economy evolved from an agrarian society at the turn of the century.

Industrial production is steadily switching away from

material and labor intensive products and processes to knowledge intensive processes:

Our nation's future has probably never been less constrained

by the cost of natural resources.

Fundamental transformation underway in economy that is

"likely to reshape virtually every product, every service,

and every job in United States."

A transition in which..

Intellectual capital--brainpower-- is replacing financial and physical capital as key to our strength, prosperity, and well-being

In all developed countries, "knowledge" workers have already become the center of gravity of the labor force.

As Erich Bloch, Director of the National Science Foundation

puts it, we have entered a new age, an "Age of Knowledge in a Global Economy"

It is rapidly becoming apparent that America's great

research universities, as the primary sources of new knowledge and those who can apply it, will hold the key to our collective prosperity and well-being in the age of knowledge that is our future.

To provide knowledge:

Contention: While the principal rationale behind much of higher education will continue to be that of providing instruction, the rationale behind America's research universities has shifted to their role as the key sources!

Error!

to build and sustain the strength and prosperity of this nation.

Our universities will face a period!

Error!

opportunities during the 1990s...a period in which our society will become ever more knowledge-intensive...dependent upon dedicated people and their ideas...and hence ever more dependent upon research universities.

Action: The "Electronic" University

Many of us have been convinced that the computer would rapidly evolve from simply a tool for scientific computation or information processing into an information technology infrastructure absolutely essential to all of our activities...from research to instruction to administration--and would provide the underpinning for the knowledge-based institutions of the future such as the research university.

Hence we set a rather ambitious goal for Michigan:

To build the most sophisticated information technology environment of any university in the world...an environment that would continually push the limits of what could be delivered in terms of power, ease of use, and reliability to our students, faculty, and staff.

We sought a distributed intelligence, hierarchical computing system linking personal computer workstations, superminicomputers, minisupercomputers, mainframe computers, function specific machines, library access, a host of various servers, and gateways to international networks and facilities such as the NSF SCC, national data centers, libraries,...

Now riding the "fourth wave" of the use of information technology...where the computer becomes not simply just an information processing tool, but rather a medium of communication, cooperation, and collaboration...an entirely new intellectual endeavor

Personal computing to "interpersonal computing"

As the result of the rapid spread of personal

computers and computer networks, and the development of new insights into human cognition and group behavior, we are at the threshold of a major shift in the underlying paradigms and uses of information technology. The shift will be from solo use of personal computers

5 - to group use of collaboration technology.

4. Intellectual challenges

There are many who would contend that the most significant challenges before higher education today are intellectual in nature.

i) The Knowledge Explosion...

New ideas and concepts are exploding forth at ever increasing rates...

Concepts which have shaken apart the classical foundations of knowledge...
the theory of relativity
the uncertainty principle
the molecular foundations of life...
genetic engineering...

Radical critiques of fundamental premises, scholarship, and culture by feminists, minorities, and third world scholars.

Obscure, yet profound, new ways to approach knowledge such as
Deconstructionism
Knowledge Engineering

In many fields, the knowledge base is doubling every few years...

Furthermore, the typical college graduate of today will likely change careers several times during a lifetime...

It will be a future in which permanence and stability are discarded in favor of flexibility and creativity... in which the only certainty will be the presence of continual change...

Hence a college education today will only serve as the stepping stone to a process of lifelong education... and the ability to adapt to...indeed, to manage change...will become the most valuable skill of all.

ii) The debate over the balance between the disciplines and interdisciplinary teaching and scholarship.

It is certainly true that the academic disciplines today tend to dominate the modern university...whether in the areas of curriculum, resource flow, administration, or rewards.

Some would even contend that this deification of the disciplines may be leading the academy toward intellectual stagnation, trapped in the sterile pursuits of increasingly specialized studies.

There are many who believe that the most exciting work today is occurring not within the disciplines, but at the interfaces between them where there is a collision of ideas that leads to new knowledge.

ii) The debate over the importance and nature of a liberal education...the importance of moral education...

or "Allen Bloom vs. Bloom County"...

Bloom County

Are our students indeed characterizes

by the philosophy of "literalism", first stated so succinctly by Opus...

"You're!orn..."

.held 6 - You live...

You go on a some diets...

You die."

Is Allen Bloom correct when he states

that we must return to a classical education...

that without a knowledge of the great tradition and philosophy of our civilization, students cannot help to understand the order of nature and their place in it

Others such as Frank Rhodes maintain that the liberal arts today are only a very partial response to the responsibility of the contemporary university and that there is a need to develop a new paradigm of liberal learning through the professions themselves.

Some such as Secretary Bennet have chastized higher education for failing to provide adequate attention to our student's intellectual and moral well-being

Others, such as Derek Bok agree that universities cannot avoid this responsibility since our institutions will inevitably affect the moral development of our students...but that we must take a broader, more comprehensive approach to moral education through academic programs, extracurricular activities, and the standards we demonstrate through dealing with ethical issues confronting our institutions.

The intellectual renewal of the role, mission, values, and goals of the university may be the key challenge before us.

Note that the liberal arts include the natural and social sciences. Together the natural and social sciences and humanities are known as the liberal arts because of their potential to liberate the human intellect and the human spirit.

What values distinguish the humanities?

Self-awareness, the appreciation of beauty, reverence for tradition and texts, an understanding of other cultures, and attention to human choices and their consequences.

Further:

- i) Each of the centers on the human individual and the process of knowing rather than simply on the body of knowledge to be acquired, as is often the case in the sciences.
- ii) The humanities explicitly concern themselves with intellectual, moral, and aesthetic values
- iii) The humanities focus on the human individual and the continuity of the culture out of which human beings have emerged over time.
- iv) The humanities place value on purity of language and teach us to prize clarity of thought and expression.

Action: The University Initiative Fund

Over the course of the next several years, we intend to launch a series of institution-wide initiatives aimed at sustaining and enhancing the vitality of the University.

To fund these, we will reallocate 1% of the base budget of the University for each of the next three years into a University Initiative Fund.

That is, institution-wide strategic initiatives will be funded "off the top". In this sense, we are reallocating

major resources of the University through initiatives that reflect some of its highest priorities.

To begin the process, we have moved forward with three initiatives we believe address priorities so compelling as to require immediate action:

- i) the quality of the undergraduate experience
- ii) the diversity of the University

iii) highly innovative (high-risk) scholarship

Common thread: Grassroots involvement...

Each involves an effort to seek proposals...ideas and participation in defining programs...from our faculty, students, and staff to address the University's highest priorities: in education, scholarship, and the attainment of a rich cultural and racial diversity in our University community.

We seek to invest resources in a way that will motivate our most creative people to become involved and committed.

The Need for a New Paradigm

The future will indeed be a time of great challenge... responsibility, and opportunity

It will be a time in which America becomes a highly multicultural society, a member of a global community ever more dependent upon knowledge

Many of us are convinced that American higher education is facing a period of change similar to that which occurred in the latter half of the 19th century when the research university was born in response to the industrial age... when the great land grant universities were created to extend knowledge to all of society... only to die

Roughly a century ago, universities were facing changes and challenges no less profound as America was changing from an agrarian to an industrial society... and they adapted by creating the research university as we know it today.

It may well be that the time has come for yet another change...and America and indeed, the world,... changes once again to a postindustrial society... a society intensely dependent upon knowledge

Yet, it is apparent that our society is changing once again, evolving from a resource-intensive, to a knowledge-intensive society. Is it therefore not appropriate to question whether

our present concept of the research university, developed largely to serve industrial America, should similarly evolve in this post-industrial age?

The research university of today stresses several important roles.

- i) To provide an education for our citizens
- ii) to produce the scholars, professionals, and leaders needed by our society
- iii) to perform the research necessary to generate new knowledge
- iv) to provide service to society across a number of fronts that draw on our unique expertise
- v) and to act as an independent and responsible critic of society.

The research university of the future will be called upon to rebalance and adjust these roles

to respond to the needs of the pluralistic, knowledge-intense, world nation that will be America of the 21st Century.

Frank Rhodes has used the analogy of a paradigm shift in suggesting that challenges and changes that will confront higher education in the years ahead.

A new paradigm:

- i) One that can respond to the opportunities, responsibilities, and challenges before higher education today and in the future.
- ii) One that can address in creative new ways our current and future national and regional needs
- ii) One that can link and balance the various missions it must perform
 - Teaching, research, and service
 - Quality, breadth, and size
 - Undergraduate, graduate, professional education and faculty development
- iii) One that can span the public and private sectors
- iv) One that can link together the many concerns and differing values of the diverse constituencies served by higher education
- v) One that can respond to the challenge of pluralism in American society and the world community by linking together the complementary objectives of cultural diversity and academic excellence
 - Seeking out and encouraging those largely excluded from higher education
- vi) Producing graduates who are broadly competent and committed, creative and compassionate

But I suspect that such a change in the paradigm of the research university will not be gradual and evolutionary... but rather dramatic and revolutionary...much like the transformations of the scientific paradigm suggested by Kuhn.

Further, rather than the paradigm serving simply to permit replication, the new paradigm of the research university for the 21st Century will clearly be an object for further articulation and specification and refinement.

And this will require, perhaps more than at any time in the recent history of higher education unusually strong leadership...leadership capable of identifying and articulating an exciting, challenging, and compelling mission for our institutions and then uniting our university communities...and those who support and depend upon us...in a common effort to pursue this mission.

A Heritage of Leadership

Who will determine the paradigm?

Why not Michigan?

Michigan is in an excellent position to develop this model for the nation--to once again assert its historical role as a leader in higher education in America.

In essence, we propose that Michigan reassert its historical role as the flagship of public higher education in America...

And, I suppose that leadership is the key theme...for a mission of developing and implementing a new paradigm of the modern research university in America is nothing more nor less than a mission of leadership.

Michigan's Heritage of Leadership

First tax-supported university in US to attain an international reputation

So too, the organic act establishing the UM in 1837 was "the most advanced and effective plan for a state university, a model for all the state institutions of higher learning which were established subsequently."

UM was not the originator of state universities, but was the first to free itself of sectarian control and become a true public institution.

From its founding, UM was identified with the most progressive forces in American higher education... Angell and Eliot were frequently the polar opposites cited nationally over ideas of egalitarianism and responsiveness to community needs.

First large state institution to be governed by the people of the state, 1817

First to depart from the classical curriculum in favor of the German approach stressing faculty involvement in research and dedicated to the preparation of future study, 1842

First university in the West to pioneer in professional education, starting the Medical School in 1850, the Law School in 1859, and engineering courses in 1854

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 even in my own field, nuclear engineering (with the associated Michigan Memorial Phoenix Project)

Michigan's opportunities for leadership are extraordinary...

1. **Reputation** as the flagship of public higher education

A large, comprehensive, public, research university

A serious commitment to scholarship

Unusual breadth, rich diversity of academic disciplines, professional schools, social and cultural activities

Unusual degree of participation of faculty and students in University decisions

Indeed, throughout its history, UM has been known for a spirit of democracy and tolerance in its student body.

Harper's Weekly (1860):

"The most striking feature of the University is the broad and liberal spirit in which it does its work. Students are allowed the widest freedom consistent with sound scholarship in pursuing the studies of their choice."

2. **People**

A faculty of great intellectual strength and unusual breadth

This past year was our best recruiting year ever...

Student body of quality unsurpassed by any public institution

Quality x quantity = #1

Largest alumni body in US (1 out of every 1,000 Americans)

(President's Club Weekend: > 700)

3. **Resources**

4. **Ability to control our own destiny**

Best of public and private worlds

Autonomy of private institution

Public support - \$240 M/y -- \$4 B endowment

Greater than Harvard and Texas

Prosperous state, with the potential for greater support
Federal support...learning how to play game better
50% over past two years...now over \$200 M/y
Private support...Campaign for Michigan
\$160 million -- now \$60 million per year

And, of course, our special
distinctiveness and strength...
i) the power of focused quality, which
it shares with the most selective
private institutions
ii) and the diversity, openness, and
breadth which it shares with the
best public institutions

It is this rich set of characteristics and opportunities,
when viewed within the context of the challenges
facing higher education today,
that suggest a challenging mission for the
University as it prepares to enter the 21st Century...

A Call for Action

If we are to be successful in defining and achieving
a mission of leadership in higher education, it
will take far more, of course.

Let me suggest several of the most critical themes:

1. The Commitment to Quality

The Commitment to Excellence

We must rededicate ourselves to the achievement of excellence.

To be sure, we are already very good in most of what we do.

But we must strive to become even better. After all, it
is the continually striving for excellence that sets us apart...

and that provides us with the visibility to attract the human
and financial resources, the outstanding students and faculty,
and the support from the public and private sectors so essential
to sustaining our quality.

Of course, in our efforts to achieve excellence we must avoid
arrogance...

We must also commit ourselves to focusing resources to achieve
excellence. In years past regular increases in public support
allow us to attempt to do a great many things, with a great
many people, and to attempt to do them all very well. However
in a future of constrained resources we can no longer afford
to be all things to all people. Quality must dominate the
breadth and capacity of our programs and become our primary
objective.

As we focus our resources to achieve excellence, we must keep in
mind that our highest priority is academic excellence: outstanding
teaching, research, and scholarship. The University of Michigan's
reputation will be fundamentally determined by the quality of our
activities in scholarship and instruction.

2. Diversity, Pluralism, and Multiculturalism

It is imperative that the University both recognize
the importance of diversity and pluralism in its
mission...

And make a firm commitment to its achievement:

i) Through the recruitment, support, retention,
and success of minority students, faculty,
staff -- and leaders

ii) And through the development of an
environment of mutual understanding
and sensitivity that not only tolerates
diversity, but moreover seeks and
embraces it as an essential objective

of the institution.

Our ability to achieve

excellence in teaching, scholarship, and service will be determined over time to a considerable degree by the diversity and pluralism of our campus community.

We draw great strength from diversity.

The Michigan Mandate

3. Intellectual Leadership

The challenge of change

It will be a future in which permanence and stability are discarded in favor of flexibility and creativity... in which the only certainty will be the presence of continual change...

The intellectual renewal of the role, mission, values, and goals of the University is one of the greatest challenges before us.

To be sure, change is not a predictable process...indeed one of the more interesting discoveries of contemporary physics has been that complex systems generally change in high nonlinear, sometimes discontinuous, and frequently random ways...

Prediction is difficult, because change is not linear... an S-shaped (logistic) curve at best...but might even be discontinuous

One can argue that such renewal and change are essential both to the achievement and the sustaining of excellence.

Furthermore, leadership requires change, innovation, and venturesomeness

To get better, we must seek a culture in which creativity, initiative, and innovation are valued.

Unfortunately, change can be threatening, particularly when it is forced by external factors in such a way that it victimizes people

But change and renewal can also empower people; it can give them control over their destiny

However, also need a stable environment that can sustain change and risk-taking and even failure.. as they say in computers, a "fault-tolerant" environment

We believe the University should not simply just respond grudgingly to change and challenge; it must relish and stimulate and manage a process of continual change and renewal if it is to achieve excellence and leadership.

The challenge of change

The intellectual renewal of the role, mission, values, and goals of the University is one of the greatest challenges before us.

Where classical science used to emphasize permanence, we now find change and evolution. We now know that stability and simplicity are exceptions.

After all, leadership means change, innovation, and venturesomeness

One can argue that such renewal and change are essential both to the achievement and the sustaining of excellence.

To get better, we must seek a culture in which creativity, initiative, and innovation are valued.

To stay the best, we must achieve a process of continual renewal.

Unfortunately, change can be threatening,
 particularly when it is forced by external
 factors in such a way that it victimizes people
 But change and renewal can also empower people;
 it can give them control over their destiny
 We believe the University should not simply just
 respond grudgingly to change and challenge;
 it must relish and stimulate and manage a
 process of continual change and renewal if
 it is to achieve excellence and leadership.

If a culture is too conformist, it will drive out those
 ideas that might revitalize it; if it is too tolerant,
 it will disintegrate by being unable to select a unity to
 preserve itself.

"A state without the means of change is without
 the means of its preservation." (Burke)

Prediction is difficult, because change is not linear...
 an S-shaped (logistic) curve at best...but might even be
 discontinuous

A linear model of the innovation process has been used to
 justify an increasingly unrealistic view of basic science
 and product development and production as sequential,
 loosely coupled processes.

Innovation consists of a discontinuity in the concept of
 production. The heart of the innovation is novelty in
 solving the problem, not necessarily economy compared to
 current practise. The innovator wants to get off of one
 learning curve, and on to another, even if the initial cost
 penalty of the jump is severe and the risk high. His eye
 is on the future; he wants nature on his side.

All systems contain subsystems which are continually
 fluctuating. At times a single fluctuation may become so
 powerful as a result of positive feedback that it shatters
 the preexisting organization. At this singular moment
 or bifurcation point, it is inherently impossible to determine
 in advance which direction change will take: whether
 the systems will disintegration into "chaos" or leap to a
 new, more differentiated, higher level of "order" or
 organization, which they call a "dissipative structure".

In far-from-equilibrium conditions we find that very small
 perturbations or fluctuations can become amplified into
 gigantic, structure-breaking waves.

Even in those regions, amplification obviously does not
 occur with just any individual, idea, or behavior, but only
 with those that are "dangerous"--that is, those that
 can exploit to their advantage the nonlinear relations
 guaranteeing the stability of the preceding regime.

It is difficult to "govern" a development determined by multiple
 interacting elements, since each individual action or intervention
 has a collective aspect that can result in quite unanticipated
 global changes. We have little understanding of how a complex
 system is likely to respond to a given change. Often the
 response runs counter to our intuition.

The more complex a system is, the more numerous are the types of
 fluctuations that threaten its stability.
 How, then, can systems as complex as ecological or human
 organizations possibly exist?
 The stabilizing effect of communication, of diffusion processes,
 could be a partial answer to these questions.
 There is competition between stabilization through communication
 and instability through fluctuations.

General principles:

1. The safer you can make a situation, the higher you can raise the challenge.
2. Don't give people goals; give them directions.
3. Encourage contrarian thinking.
4. Build a textured environment to extend not just people's aspirations but their sensibilities. (Creative people require tools and environment.)
5. Build emotion into the system.
6. Encourage accountability over responsibility.

Venturesomeness and Daring

Intellectual leadership...

demands pushing to the forefront of discovery
working on the exponential part of the knowledge curve

Shift to a change-oriented, risk-taking culture

Relish change!!!

Stress bold, new initiatives...

4. The Important "Cs":

The C Words

Community, comity, compassion

Caring, concernk, comforting

Cooperation, communication, civility

Non C worlds

Competition, contempt, coldness

Compliance, control, command

Other "C-words"

However as the past of change has accelerated and become less predictable, the potential for conflict among various groups in society has increased, taxing both the capacities of our institutions to reconcile competing interests and the willingness of special interest groups to accept any compromise.

One of the most redeeming aspects of our society's liberal institutions is their basis in the idea that different groups should be able to get along together (i.e., have common access to procedural justice) without completely agreeing on what is good, just, and worth.

A change in style

Academic institutions are profoundly people-dependent

Hence, the key to excellence is attracting and retaining the outstanding students, faculty, and staff, and providing them with the environment and encouragement to push to the limits of their abilities, and then getting out of their way!

However, in striving for a culture

Which stresses excellence, achievement, and excitement...which removes constraints from talented people and encourages them to "go for it"!

Do we also run the risk of losing that sense of collegiality, that sense of a scholarly community attempting to focus its collective wisdom on the great problems of our times?

One must combine commitment to independence with a concern for the interdependence of our individual and institutional existences.

We must be a place where a healthy spirit of criticism can exist side-by-side with a genuine

civility toward one another.

As we attempt to build stronger and stronger programs in the traditional disciplines, do we also create strong centrifugal forces which tend to pull the various components of the University to the periphery and diminish its core?

It is both a challenge...yet also an important theme of the modern university to search for ways to unite us through shared values and goals this institution.

From the earliest moments in our long history, the UM has been known for a spirit of democracy and tolerance among its students and faculty.

Almost a century ago, Harpers Weekly noted: "The most striking feature of the University of Michigan is the broad and liberal spirit in which it does its work."

Hence it is fitting that we seek ways to bring us together

For example, in an intellectual sense through integration of academic disciplines, the professions, and the arts into a more self-confident academic community, a community in which the human mind is brought boldly to bear on the most enduring questions that confront us.

We must seek to integrate the traditional functions of teaching, research, and public service: as integrated activities of an inquiring and responsible community.

But, of course, Michigan is more than students and faculty and staff...

It is a community of families, spouses and friends, children...even pets! And I am absolutely convinced that there are thousands of members of this extended Michigan family who are every bit as committed to the University as those we call faculty or staff -- who contribute their energy and talents in a host of important, yet usually unrecognized and unappreciated ways. It is essential to draw these people to into our community.

For that reason, we are convinced that we must look for experiences beyond the academic process to bring people together...to establish new bonds of friendship and understanding.

Caring, Community, Cooperation, and Civility

A Sense of Community

A change in style

Academic institutions are profoundly people-dependent

Hence, the key to excellence is attracting and retaining the outstanding students, faculty, and staff, and providing them with the environment and encouragement to push to the limits of their abilities, and then getting out of their way!

However, in striving for a culture

Which stresses excellence, achievement, and excitement...which removes constraints from talented people and encourages them to "go for it"!

Do we also run the risk of losing that sense of

collegiality, that sense of a scholarly community attempting to focus its collective wisdom on the great problems of our times?

As we attempt to build stronger and stronger programs in the traditional disciplines, do we also create strong centrifugal forces which tend to pull the various components of the University to the periphery and diminish its core?

It is both a challenge...yet also an important theme of the modern university to search for ways to unite us through shared values and goals this institution.

Hence it is fitting that we seek ways to bring us together

For example, in an intellectual sense through integration of academic disciplines, the professions, and the arts into a more self-confident academic community, a community in which the human mind is brought boldly to bear on the most enduring questions that confront us.

We must seek to integrate the traditional functions of teaching, research, and public service: as integrated activities of an inquiring and responsible community.

But, of course, Michigan is more than students and faculty and staff...

It is a community of families, spouses and friends, children...even pets! And I am absolutely convinced that there are thousands of members of this extended Michigan family who are every bit as committed to the University as those we call faculty or staff -- who contribute their energy and talents in a host of important, yet usually unrecognized and unappreciated ways. It is essential to draw these people to into our community.

For that reason, we are convinced that we must look for experiences beyond the academic process to bring people together...to establish new bonds of friendship and understanding.

A Return to Fundamental Values

Let me suggest, that as we contemplate the various actions necessary for leadership in higher education, we would do well to reconsider the most fundamental values of the University.

For while change and renewal will be important themes of our future, they can only occur upon a foundation of fundamental institutional values.

Of course, academic institutions usually focus first on intellectual values...characters of the mind....

The seeking of wisdom
Discipline of the mind
Respect for reasoned conclusions
Intellectual integrity
Freedom of inquiry

While these are of course essential in any university, there are also other sets of values which we must not ignore:

Values of moral character:

Honesty

Integrity
Truthfulness
Nonviolence
Tolerance

Values of a civilized society:

Compassion, Caring, Kindness
Tolerance and respect
Collegiality, civility, and community

We need a message which stirs the hearts of people
"Caring and Quality"
Caring, Concern, and Compassion

Roles

Faculty role

Faculty involvement

Of course, we realize in an institution of such size, complexity, and tradition, those of us over in the blockhouse will have little capacity to define, redirect, or reorder the priorities of the University.

The articulation and achievement of any mission must be a communal effort. It will rest with faculty groups in and across schools and colleges; with students inside and outside their formal organizations; with professional and other staff throughout the University.

Hence, the role of the leadership of the University is simply to generate the debate...and then to provide resources for continuous experimentation.

The momentum of this University...of any great university...must flow up from the faculty...through the administration...
from you...not to you!

Great universities are run by their faculties...
for their faculties...

Organization of university...

Not a corporate (control, communication, command)

Rather a "voluntary" organization...
a creative anarchy

(Bok)"My biggest job is to create the atmosphere where creative people can do well. There are a lot of people running hard in this institution, and there has been a remarkable absence of smugness and self-satisfaction."

The impresario model is the best for managing creativity...must inspire, deal with creative temperments, coach, provide the environment

A Mission for the 21st Century: Leadership

Roughly a century ago, universities were facing changes and challenges no less profound as America was changing from an agrarian to an industrial society... and they adapted by creating the research university as we know it today.

It may well be that the time has come for yet another change...and America and indeed, the world,... changes once again to a postindustrial society... a society intensely dependent upon knowledge

I believe it is indeed a time during which our University should strive to reassert itself as a leader in higher education, perhaps even by challenging itself to develop the new paradigm of the research university so clearly needed by our nation.

Such a mission of leadership would provide both an exciting and appropriate direction for the University as it prepares to move into the 21st Century.

There seems little doubt that the decade ahead will indeed be a time of opportunity, responsibility, and challenge. It will also be a time a great **excitement**.

How of much of this particular vision of the future will actually come to pass?

To be sure, change is not a predictable process...indeed one of the more interesting discoveries of contemporary physics has been that complex systems generally change in high nonlinear, sometimes discontinuous, and frequently random ways...

Hence there is always a certain hazard to predicting the future... But then I always remember that old saying "The best way to predict the future is to invent it!".. And isn't that, after all, just the role of the University... the job of inventing the future?...

A Mission of Leadership

As I and my colleagues have become ever more deeply involved in this process over the past two years, we have become ever more convinced that the University today faces a pivotal moment in its history... a fork in the road...

Taking the path in one direction will, with dedication and commitment, preserve the University as a distinguished-- indeed, a great--university, but only one among many such institutions.

However there is another path...a path that would require great vision and courage in addition to dedication and commitment...in which the University would seek not only to sustain its quality and distinction, but it would seek to achieve leadership as well.

We believe the University could...and should... accept its heritage of leadership in public higher education... that the 1990s and beyond could be a time similar to that extraordinary period in the late 19th century when the University of Michigan was a primary source for much of the innovation and leadership for higher education.

In a sense, I and my colleagues believe the University has the opportunity to influence the development of a new paradigm of what the research university will be in 21st Century America...a new model capable of responding to the changing needs of both our state and our nation. But this will require clear vision, an unusual commitment to excellence, and strong leadership...

Leadership capable of working with the University community and those throughout the state and the nation that depend on us, to develop and articulate an exciting, challenging, and compelling mission for Michigan as it prepares to enter the 21st century leadership capable of identifying and articulating an exciting, challenging, and compelling mission for the

And then to unite the University community...and those who support and depend upon us...in a common effort to pursue these goals.