

Senate Assembly - 1990

Introduction

Ah, it all starts again...

It is always incredible how rapidly the summer disappears.

And particularly this summer!

A Time of Uncertainty and Concern

The last few months have been a time of great excitement...

...but also a time of great concern...

...a time of highs and lows...

The extraordinary political changes in the Soviet Union and Eastern Europe, the reunification of Germany, the transformation of old adversaries into new allies.

Yet, even as this new spirit of optimism surged across the country, storm clouds were building on the horizon

i) The Crisis in the Persian Gulf,

just when we thought the cold war had come to an end and peace was at hand

ii) The growing uncertainty about our nation's economy,

perhaps best reflected by our growing triad of deficits...

...in federal spending

...in foreign trade

...and in the education received by our youth

and a host of other ills ranging from the ravages of drugs and crime to environmental impact to the

plight of the poor in our society.

iii) Growing concerns closer to home as the state of Michigan

appears to be slipping once again toward a recession.

The Good News

Yet there is also reason for great optimism and confidence concerning the future.

Indeed, in terms of the fundamental

life and purposes of the University,

I believe the institution is stronger than ever.

There are many signs of this vitality,

but the events of few days in late summer

brought this home to me.

Late July is normally a low energy, even depressing, time on campus

...heat, humidity, dog days, the annual budget crunch with Lansing,

...the Ann Arbor Street Fair...

Yet during a relatively short period of a few days in late July,

- i) Francis Collin's team of medical scientists announced they had discovered the gene responsible for neurofibromatosis... the Elephant's Man disease ...incidentally the same team discovered and cloned the gene responsible for cystic fibrosis last fall.
- ii) A team of over 100 Michigan students won the solar car race from Florida to Michigan, thereby earning the right to represent the United States in the world competition in Australia this fall.
- iii) It was announced that two Michigan members, Sherry Ortner and Rebecca Scott, had won MacCarther prizes--joined by a third former Michigan faculty member, Tom Holt, now a visiting faculty member at the University.
- v) Gerard Moreau's laboratory announced
- vi) Phil Gingrich announced the discovery of a fossil

summer, one of our women engineering students won the American Gladiator competition... and one of our alumni--and a former Regent-- Bob Nederlander, succeeded George Steinbrenner as managing owner of the New York Yankees. (The second Michigan contribution to the American Baseball League this year...we lent Bo to run the Tigers last spring!!!)

Not a bad week! But then, it was rather typical for this remarkable university.

It provided a healthy and happy reminder that the real business of the University is in the very capable hands of our faculty and students and, as always, they are doing us proud.

Key Themes:

Then, too, during the late summer there was tangible evidence of the remarkable progress the University

has been making on several strategic themes...

The Michigan Mandate

Students

Freshmen: We will not have precise data until the three-week counts, but last week's final deposits received information looks very encouraging:

Black: +34%, Hispanic: +25%, NA: +17%

NOTE:

ii) largest in our history

Graduate Students: Preliminary data suggests we're up

this point--but 20% of entering MBA class are Black, 29% minority

Faculty

Total Minority: +52

+22 Black, +20 Asian, +9 Hispanic, +1 NA

NOTE:

i) Best year in our history

ii) On track to double in 4-5 years

Globalization of the University

Teams of Michigan students traveled to Poland and Soviet Armenia to help these rapidly changing nations in their transition to capitalism.

Bob Zaonc announced an agreement in which ISR would help Poland build a counterpart research institute in the social sciences in Warsaw.

The President lent his daughter to Hungary for two years as a Peace Corps volunteer...

The Age of Knowledge

NSFnet, the major computer network, operated by the University in collaboration with IBM and MCI, passed the milestone of linking together over one million users in the U.S. and around the world...at over 500 sites.

The next stage, the National Research and Education Network or NREN, now stands poised to continue this momentum in the year ahead with strong support building both in the White House and in Congress.

Today in Washington, UM, IBM, and MCI are announcing the formation of a new nonprofit corporation to manage this “interstate highway system” for information transfer.

The Resources for Excellence

In addition to setting out these themes and putting machinery for implementation in place, Administration has had to give priority attention to our relations with many external constituencies and this is beginning to pay off.

State Support: While this was not an exceptional year, we managed to protect higher education from the executive order cuts experienced by other state agencies and achieve a 5% increase in our appropriation--the first time in four years that we have even been even with inflation. And we didn't ever take our usual bashing from the Legislature!

Federal: Our faculty continues to be extraordinarily effective in attracting research support from Washington, as evidenced by the fact that for the first time in our history, our federal support exceeded our state appropriation in magnitude.

Private Fund Raising: And we had a great year in private fund-raising, receiving over \$83 million in gifts and and additional \$28 million in pledges. This represents a growth of over 18% from previous years.

Internal Mangement: I might also note that under the leadership of VP Womack, the University now ranks first among all major universities in the nation in the investment return on its endowment.

The Challenge of Leadership

A Time For Leadership

However, it is a good thing that all of the vital signs of the University seem so strong, since it is also clear that our society, our nation--indeed, the world--are becoming ever more dependent on institutions such as ours.

Just think of the challenges which cry out for attention

- the plight of our cities,
- the greenhouse effect and global change
- international competition

Pacific Rim or Europe 1992

- health care: cancer, heart disease, AIDS
- new frontiers: outer space
or spaceship Earth

But it is clear the greatest need of all is for leadership
and this, of course, is the University of Michigan's
great contribution to America...

...through its teaching, research, and service

...through its graduates and their achievements

Indeed, leadership is both
our heritage
and our destiny!

Leadership in Higher Education

But there is another arena in which leadership is
needed, and that is in higher education itself.

The winds of change are blowing...

stirring the cauldron of higher education
to create a new model of the university
for the future.

Today many are questioning whether our
present concept of the research university,
developed largely to serve a homogeneous,
domestic, industrial society...must also evolve
rapidly if we are to serve the highly pluralistic,
knowledge-intensive, world nation that will be
America of the 21st Century.

Who will determine the new paradigm for the research?
university in America?

Who will provide the leadership?

Why not the University of Michigan?

After all, in a very real sense, it was our University
that developed the paradigm of the public university
capable of responding to the needs of a rapidly
changing America of the 19th century...
as American expanded to the frontier...
as it evolved through the industrial revolution...
as it absorbed wave after wave of immigrants
a paradigm that still dominates higher education today.
In a sense, we have been throughout our history the
flagship of public higher education in America.

In a very real sense, it was in Ann Arbor that the University of the 20th Century first evolved. Perhaps it is time that we once again played that role... defining the nature of the university once again... ...a university capable of educating the citizens and serving the society of not the 20th, but rather the 21st Century.

Reinventing the University

Of course, this has been one of my themes for the past two years.

I have suggested that we should look at the decade ahead as a period during which we should accept the challenge of creating this new paradigm of the university to meet the needs of a new century--to respond to a changing nation and a changing world.

Indeed, I have suggested that perhaps it is time for Michigan to "re-invent" the University.

Of course, "re-invent" is surely the wrong word... ..although it certainly did get everyone's attention.

What I think we really need to do is take up our historic role of leadership in higher education and once again try to define a bold vision for the future of the University of Michigan and to envision the actions we must take to get there through intensive debate and discussion.

I believe we must be bold and venturesome in considering our alternatives creative and inventive in seizing opportunity and meeting challenge

Of course I am not proposing that we change our fundamental missions of teaching and scholarship.

They must always remain the core of the University's activities.

Indeed we must be concerned about preserving what is most precious and fundamental about our University and its scholarly life.

Rather I believe our challenge is to adapt some aspects of what we do to changing needs and conditions

both within and outside the academy.
Much of what is needed is a rebalancing
where the pendulum has swung too far
to one or another extreme
at the expense of our basic mission and values.
During the past several years we have been taking
the first steps necessary for this renewal...
...Rebuilding the University leadership team...
..Establishing new and stronger bonds
with the constituencies we serve...
...Articulating the themes of change we believe will
dominate our society in the years ahead...
...the cultural diversity of our nation
...the growing interdependence of the global village
...and our transition to a knowledge-intensive society
But now we must join together to focus our attention on
our primary endeavors of teaching and scholarship
and attempt to define the fundamental academic
mission of the University in light of the changes occurring
in our internal and external worlds.

We should use this coming decade of transition to a new century
to consider who we are and what we want to become.

We will not be alone in our deliberations.
From Harvard to Stanford, Cornell to Berkeley...
...indeed, Oxford to Cambridge...
our peers are also taking up the challenge of reflection and renewal.

And we should remind ourselves that
As institutions, universities are always changing--
probably never more so than in the past fifty years
as the modern public comprehensive research university
that we know today took shape.

The Changing Nature of Higher Education

These radical changes in the very nature of
the university were driven by economic,
social, political and technological forces
in part ge

unprecedented growth and prosperity

In the postWorld War II years we have become
a central institution of our society

from economic development to national security,

...health care to the exploration of space,
...the preservation of our culture to triggering
of social change.

it has been a heady experience to find ourselves

funded at levels undreamt of only a little over a generation ago.

respected well enough but mostly unnoticed and allowed .
to go about our business unchallenged and largely unfettered.

What a contrast today, when we find ourselves
considered a key social economic,
political, social and cultural institution.

But, ironically enough, our increasingly critical role has
not brought with it increased prestige,
public confidence or respect.

Instead, like so many other institutions
we are roundly criticized by right, left and center
and from even from within
by many faculty, students and staff
for flaws large and small, fundamental and trivial.

The titles of the books by some of our critics reveal this:

... "The Moral Collapse of the University"

... "Tenured Radicals"

... "Killing the Spirit"

... "Profscam"

...and, yes, Virginia, "The Closing of the American Mind"

Rather we should pay attention to what they say,
since what they all appear to have in common is
a question of our commitment to fundamental academic values.
Besides, the truth is that we can no longer ignore them even
if we wanted to.

They will not go away.

To the extent their criticism is constructive, we should try to hear it.

To the extent they are wrong, we should try to answer them
with a compelling affirmation,
a renewal of our vision and purposes, a confirmation
of our unique community rights and responsibilities
arrived at through extensive debate and discussion
among ourselves and with our many constituents.

The Role of the President

But we should not leave the questioning to others
but rather take the initiative
...to reflect and take stock

...to question ourselves

And, of course, that is, in part, the role of the President
of a University.

To ask the questions, to pose the challenges.

In fact, I'm afraid that is all that most presidents
have to offer...lots and lots of questions
...with very, very few answers.

To be sure, the administration can lay the foundation
for these discussions...

...we can also help to secure the resources

...build the necessary public support

...in addition to keeping the buildings heated

But when it comes to renewal, to redirection,
to revitalization, it is our faculty who must
lead the way.

Over the course of the year ahead I intend to
move into this role of questioning and challenging

...stimulating our consideration of a wide array
of issues concerned with academic life.
As a preview of coming attractions,

Q1: What is the fundamental role of the university in modern society?

What is our core value to society?

If the issue is to get back to fundamentals, to reorganize
around our basic values, then how and where do we begin?

Q2: The production of leaders

Michigan's historical role has been to educate leaders for our society.

But what kind of education should we provide to our students today
to equip them for leadership roles in a very different nation
and world that we, ourselves, have known?

What should we pass on and what should we renew or reshape
or rebalance?

Q2: Undergraduate Education

There is a growing national consensus
that we have lost our balance and direction
when it comes to undergraduate education.

Recently, Professor Weisbuch and his colleagues in LS&A have
produced an extraordinary report on the quality of the
undergraduate experience--going far beyond the role
of merely questing and instead suggesting a broad
array of actions.

I think their report offers the kind of creative vision we need
and I hope that every member of the faculty will read it
engage in the debate about its recommendations
and help us refashion our teaching and curriculum

It can serve as an excellent
vehicle for the University to address its commitment
to undergraduate education.

Q4: Quality of Teaching

And what about the age-old questions surrounding a
proper balance between teaching and research?

Here, I must confess a very special interest, since

I have just agreed to a two-year term as chair of
standing committee of the National Science Board
concerned with Education and Human Resources.

We are in the midst of a very major effort to examine

the impact of research on the quality of undergraduate education.

An Aside: NSF Studies

Incidentally, I should note that our preliminary studies are suggesting something rather surprising-- that the learning environment provided by the large research university may be a significant advantage for undergraduate education.

Study

Sample: Over 50,000 students majoring in S&E whose 1987 GRE score (quantitative and verbal) could be matched by ETS with SAT score

Variables: GRE, SAT, gender, race, UG major, UG school

Value Added: Average addition to a student's total GRE score associated with going to a particular school, irrespective of SAT, gender, minority, or UG major.

Results:

1. The top 20 research universities scored far higher in the "value added" than any other institutional type...even better than the small, prestigious liberal arts colleges to renown for their teaching focus.
2. The educational value added was highest in those institutions doing the most research.
3. It was also highest in the largest institutions.

Hence, it is clear that both the size and intellectual excitement of major research universities such as Michigan, Berkeley, Harvard, and Stanford create the most effective learning environment--at least for students such as yours.

For that reason, there may be no reason to be apologetic about the research performed by our faculty--or the services performed by our professional schools. They all add to the educational experience of our undergraduates.

Not to say we cannot do far better...

...but we should take care not to throw out the baby with the bathwater...

Q5: Intellectual Questions

The balance between disciplinary and interdisciplinary activities

Many 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. 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. But there are also those who believe that there is a certain faddish nature to interdisciplinary work... and that efforts to stimulate this activity are, in reality, just causing people to staple together unrelated projects into proposals so that they smell more interdisciplinary... 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. Further, it also seems clear that increasing specialization has led many of our colleagues to focus their loyalties more on their disciplines than the institution, scholars so important to a University.

we also tend to create strong centrifugal forces which tend to push the various components of the University to the periphery. On the other hand, we can also diminish the intellectual core of the institution by forcing interdisciplinary activity where it is not really appropriate, thereby perhaps diverting badly needed resources from the disciplines and starving the core of the University. Achieving the appropriate balance between the disciplines and interdisciplinary teaching and scholarship is one of the major challenges before institutions such as ours...just as it is before the nation's research establishment.

demands pushing to the forefront of discovery
One of the great challenges of research universities

is how we can encourage more people to work down
in the high-risk, exponential part of the knowledge curve...
without unduly jeopardizing their academic careers.,
We must stimulate more of a risk-taking intellectual culture
in which people are encouraged to take bold initiatives.

Q6: Graduate Education

We have an unparalleled opportunity to shape the academy for
the future through our graduate students.

How do we meet this responsibility?

Oh, yes, and another pet peeve...

Why does it take so damn long to earn the PhD in some fields.

It may interest you to know that the average length of time
from the B.A. to the PhD across all disciplines now
approaches 10 years!

I find this not only puzzling--but perhaps a bit feudal as well!

Why should it take so many more years to produce a PH.D
than a medical doctor who will hold human life in the balance?

We all know that it isn't the facts or sheer bulk of information
that prepares a Ph.D. for her roles as teacher and researcher.

The key is preparing students to keep on learning as well as to give
a thorough grounding in their field.

But are we taking too long and perhaps giving more weight
to perseverance than creativity and imagination?

Does it make sense for all of young adulthood, one of the most
vigorous and productive periods in one's life,
to be spent as a student?

Perhaps we need to rethink the very nature of graduate education
to find those fundamental principles and methods
that are needed by a scholar and just scrap some
of the drudgery we are insisting on now.

Q7: Faculty

Nowhere is the opportunity to shape the future of Michigan greater
than in the hiring of young faculty
that we are doing now and will do in increasing numbers
over the next decade and more.

How do we select for brilliance and creativity?

Indeed, do our present traditions and practices in faculty selection
allow us to select genius?

How do we assess and enhance teaching ability?

How do we evaluate and reward service activities?

Indeed, what is the appropriate form of service in the research university?

Q8: Issues of Values, Community, Civility, Collegiality

And what of our institution as a community?

What are the values that ought to guide us in our relations with one another and to our society.

for the moment.

Themes for the year ahead

Inventing the Future

One of characteristic traits of scientists is our excessive preoccupation with long range planning.

We spend a great deal of time thinking about the future...not simply in an effort to understand it, ...but to see if we can actually create it...

In a sense, our key spirit is best described by the motto: "The best way to predict the future is to invent it!"

Themes of Past Years

It was in this spirit that in each of the past several years we have attempted to select key strategic themes and focus our attention on these.

For example, in 1987-88, the key theme was transition...
...a transition in the leadership of the University with a new president, provost, chief financial officer, ...even a new athletic director!

During 1988-89, we attempted to set out several of the key themes we believed would dictate change in higher education during the 1990s...

the themes of:

...demographic change and cultural diversity

...the evolution of the United States into a world nation in an ever more interdependent global community

...and the age of knowledge we see ahead in which the key strategic resource necessary for prosperity and social well-being becomes knowledge itself-- that is, educated people and their ideas

Last year, 1989-90, we focus our attention on rebuilding and strengthening the bonds between the University and several of its key external constituencies...

State relations

Federal relations

Media relations

Community relations

Alumni relations

The Campaign for the 1990s

In a similar spirit we have chosen yet another key strategic theme for the year ahead: the theme of community...

The Theme of Community

In any institution, particularly large, complex, and rapidly changing institutions such as universities, there is always a litany of commonly mentioned concerns...

1. Described in part by terms such as:

Malaise

Morale

Separatism

Fragmentation

2. Or in terms of behavioral issues such as:

Substance abuse,

Crime

Racism, Sexism,

Vandalism

3. So too, do concerns stimulated by other issues drive us apart...

Budgets...

Salaries

Special interest agendas

Parking

4. The perceived conflict between

Students vs.

Faculty vs.

Staff vs.

Regents vs.

Administration

(Everybody is in conflict with the administration, of course)

5. All too often the mottos in such complex institutions are:

“What’s in it for me?”

“What have you done for me lately?”

I believe that these concerns and issues, while deserving of attention, to be sure, also can serve to fragment the University even further.

I also believe we must strive to balance them with other objectives, perhaps best expressed by the so-called "C" words:

Community

Communication

Comity

Coollegiality

Collaboration

Cooperation

Coherence

Concern

Caring

(My wife also suggests cleanliness and chastity)

(These stand in sharp contrast to our present preoccupation with the "p-words"... politics, parking, Penn State, provost, and President!)

These are the "glue words", the values and principles which serve to bind us together as a community.

In the year ahead I believe we must strive to understand better and take the actions which can bring us closer together as an intellectual and moral community...

that we seek to articulate and adhere to our most fundamental academic and civic values

and that we all strive harder to balance our passions to protect our rights with our obligations to accept our responsibilities

...for ourselves

...to each other

...to our community

and to the future

It is my belief that we must all strive to create more of a sense of ...pride in...

...respect for...

...excitement about...

...and loyalty to...

...this great University!

And I am committed to doing all I can to build this level of commitment!

Conclusion

As I warned you, I do not have answers to the many questions

As you have now heard, I don't even begin to have all the questions.

But I hope each of you and all of your colleagues
will take up the challenge of my questions
and that you will come forward with
even more critical ones of your own.

Our task is to sustain and build a University
that represents the very best legacy we can pass
on to coming generations.

We have an unparalleled opportunity to shape the future
of our own University and because of our tradition
of leadership to shape the academy for generations to come.

Now time is ripe for taking up a much larger

more especially to the faculty, for you more than any others,
hold our future in your hands.

A Personal Remark

You know, Michigan is really a very special place....

It is one of only a handful of universities capable
of truly changing not only higher education,
but the nation and the world.

A personal note here:

It was some 20 years ago that Anne and I left
the warmth and sunshine of Pasadena to come to
Michigan.

We did so, in part, because Michigan had what was
clearly the best department in the world in my
particular field of interest, nuclear engineering.

And throughout almost two decades on this campus,
I have found myself surrounded by faculty and
students who have arrived on this campus because
they wanted to be associated with the very best...
...the world leader...in education and research.

These linked themes of leadership and excellence
are what have kept me here...and what make
this University so very special.

I believe the challenge of re-inventing
the American university for the 21st Century

...is not only an exciting and
challenging mission for the 1990s
...but it is also a mission befitting
UM's long heritage of leadership
The 1990s will be a time of great challenge
opportunity, and responsibility for your university.
But they will also be years of great excitement.
As we begin this great adventure of determining
the nature of the university capable of
serving a new century.