

CBS Questions:

What is it about Michigan?

Well, the montage we have just seen reveals one of the very strong themes of this institutions...the rich diversity is what it does...
very

Academic programs spanning the range of almost every intellectual and professional discipline...
...from Buddist studies to sociobiology
...from investment banking to musical theatre
...from optoelectronics to human gene therapy...

A learning environment characterized by a truly extraordinary banquet of cultural, social, and athletic activities...
...whether it be the birthday performance given by Leonard Bernstein and the Vienna Philharmonic last fall...
Bernstein and the Vienna Philharmonic or those incredible fall weekends in Michigan Stadium filled with 105,000 fans rooting for Michigan football

And, of course, the extraordinary excitement...
...not to mention challenge...posed by a highly activist student body and faculty...long a Michigan tradition

In many ways, Michigan has been throughout its history both the prototype and flagship of public higher education in America...

From its founding, UM was identified with the most progressive forces in American higher education...
Angell's attempt to provide "an uncommon education for the common man"...to couple research with teaching...to build strong professional schools...

And at that time there was little doubt that the University of Michigan was not only the flagship of higher education in America, but perhaps more than any other institution, Michigan during the latter half of the 19th century had practically invented the comprehensive research university that has served our nation so well.

Well, today we are looking forward to the 75th Rose Bowl...

...and we are proud to be once again to enter a new century...

And I and my colleagues believe that it is time that Michigan once again assume its leadership role in inventing a university capable of serving America of the 21st Century.

The Historical Role of the Public University

To serve...perhaps the most unique theme of higher education in America...

For the bond between the university and society are particularly strong in this country...

Historically our institutions have been responsible to, shaped by, and drawn their agendas from the communities that founded them...

Perhaps this is now more apparent than in our State of Michigan and with its institutions...

For example, the founding principle of this institution, can be found in the words of the Northwest Ordinance above Angell Hall:

...above Angell Hall:

head 3 - "eligion, o□rality,!□nd h

nowledge#bek

gnecessaryto good

h) □ 3&-Error!
head 3 - of(

ducation sh`ll

forever be encouraged."

hec 2 + And perhaps it,ws apropritetht Mk higan head 3 + Astate
with selmingly infinitl resoucd of fur,timber,
ron, and copper...
state with boudless confidence in the future

..he`d 8 + Should play sucha!

Leadership role in developing tax model

head 4 - of high education which would later, serve all of Africa.
For while the University of Michigan was!

ot the first of the state

universities, it nevertheless is commonly regarded as the model of
hetrue public uniwersity, responsible and responsive to
the needs of the,peoplewho founded and supported it,
even as it sought to achieve quality equal to that of the
/head 3 -, most distinguished private institutions.`head 2 + So too, our
sister institution to thewest, Michigan State University,
was really the driving force stimulating the Morrill Act and it became
the prototype of the great land grant unversity that has served
America so well...

And our sister institution to the east, Wayne StateUniversity,
has provided an important model of the urban university,
seeking to serve the needs of one of our nation's great cities.

The State of Michigan, through these institutions and others which
have arisen since, has provided a model of how higher
education serves society through the triad mission of
teaching, research, and public service.

These institutions grew up with our State...responding to the
changing needs and aspirations of its people...

- i) First as Michigan tamed the frontier...
- ii) Then as it evolved through the industrial revolution
into the manufacturing capital of the world...
- iii) As the population of our state surged following the
war years...
- iv) And most recently, as Michigan has sought to
strengthen and diversity its economic base.

Yet the strength of our State, its capacity to build and
sustain such extraordinary institutions, lies not in
looking to the past, but rather in its ability to look to
the future...to take the actions and make the investments
in the present that would yield prosperity and well-being
for its people in the future.

Hence, as I assume the responsibilities of leading the University
of Michigan, it seems appropriate that I look ahead...
to suggest what some of the themes of our
future will be...and how our academic institutions must respond.

What we are...and what we are not!!!

What is unique about our universities -- our "market niche"?
Large, comprehensive, public, research universities
With a serious commitment to scholarship
Unusual breadth, rich diversity of academi{ disciplines,
professional schools, social and cultural activities
Unusual degree of diversity of students, faculty, and staff
Unusual degree of participatim

of faculty and students in
University decisions
Unusual commu
ent to the quality of students, faculty, and
programs

In a sense, the strength of our institutions depend upon
our efforts to achieve an optimum blend of
.heae4 + Quality/ breadth, aneÅscale`..
We attempt to do a great many things...
to involve and benefit a great man{people...
and we attempt to do them all vly well□
Te!ching, research,!Ånd service
Undergradu!te. graduate, professional education
`head 5 - and faculty e□velopment

Note: Not a conflict!

Rather an opportunity, a "creative tension"

It is this which provides our research universities with
a unique environment for undergraduate education...

We are not (and should not try to be)

a small, liberal arts college...
with faculty chosen primarily for their teaching skills..
with a narrow curriculum limited both by design and resources...

Rather, we are large, comprehensive, research universities...

spanning almost every intellectual discipline and profession...
with the capacity to attract and sustain myny of the world's
leading scholars...

with resources unmatched elsewhere in our society...

.heyd 4 - whether in!□he extent of our library collections...

or in collections of our museums...
or in the laboratory facilities we can provide...
or in exotic new tools of our intellectual trade...
...supercomputers
...molecular beam epitaxy machines
...positron emission tomography accelerators

Our unique role...

1. To provide our undergraduates with an experience
which draws on the vast intellectual resources of
a research university...its scholars, its libraries and
laboratories, its professional schools...its remarkable
diversity of people, ideas, and endeavors
2. To expose our students to the excitement of great minds
struggling to extend the bounds of our knowledge...
NOTE: The scholars we place in the classroom may not always
be the best teachers of facts in the traditional sense...
but we are convinced that only by drawing into the
classroom scholars can we stimulate our students
to develop the skill at inquiry from a broad range
of scholarly disciplines so essential to life in
an age of rapidly expanding knowledge.
3. To develop in our students both the ability and the will
to strive for knowledge. Few of our research universities
will deliver an education to its students on a silver
platter. Rather, we believe that a critical component of
an undergraduate education in a research university is
the development of the skill to seek and the will to find.
4. To expose our students to the diversity, the complexity,
the pluralism of peoples, cultures, races, and ideas that
can only be found in the intellectual mixing pot of the
modern research university.
5. Oh, yes, we also believe that our mission is also to

educate the leaders of American society. Indeed, if past experience is any guide, most of our leaders will continue to be produced by the great research universities of our nation.

Particular nature of public universities...

Engendering of Michigan people really sacrificed to build and institution of this quality...an uncommon education for the common man.

We are fortunate in being able to attract the best students from throughout the state and across the nation...
...and well as the leading faculty.

Connections and competition keeps us tough and adaptable: Because of the public democratic tradition and support and interdependent with our society. It is this practical connection with the world around us and our accountability to our public that keeps us flexible and makes us tough competitors.

Size and Comprehensiveness: Our comprehensiveness allows for strength in more areas and gives vitality to the interconnections among areas of knowledge. Hence students have an incredible broad intellectual and cultural resources to learn from.

Caring community with deep-rooted values: Our people make the difference. Maybe it is somehow rooted here in the midwest.

What about the conflict between teaching and research?

Actually, in a research there is no conflict of these two missions but rather a merging into one...that of learning...in which students and faculty come work together to learn together.

What are the problems we face?

Not really problems...but rather the challenge of the future... indeed, the challenge of change.

We are at a very unusual point in time since the students on our campus today will be citizens of a different century... the 21st Century. Our challenge is to look ahead and think carefully about what their world will be like...and then to build a University capable of preparing them for this future.

Economic Transformation:

In the midwest, as across the nation, we are in the midst of a profound transformation in the nature of our economy and our society and we shift into a postindustrial society ever more dependent on knowledge--that is, on educated people and their ideas.

In the short run, like the rest of America, we are going to have to make tough decisions about investing more in the future education of our children, whether it be in K-12 or college or graduate school or lifetime education.

We need to improve and adapt our curriculum to educate our students better to prepare them for a future of change.

What are the emerging issues for higher education as

we approach the 21st Century

The Need for a New Paradigm

The triad mission of the university as we know it today, teaching, research, and service... was shaped by the needs of America of the past...

Yet our nation today is changing at an ever accelerating pace...

Hence, is it not appropriate to question 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.

Of course, there have been many in recent years who have suggested that the traditional paradigm of the public university must evolve to respond to the challenges that will confront our society in the years ahead...

.he!d 3 + But will a gradual evolution of our traditional paradigm be sufficient...or, will the challenges ahead force a more dramatic/ indeed, revolutionary, shift in

.h}ad 4 - the paradigm of the contemporary research university...

I believe higher education has to provide strong leadership.

We have to join with others and reach out to the public for a dialog about what our future holds in store for us...and what we can do about it.

We have to start looking at tough choices with the courage to face them head on.

Doing the research and education the people to assure that our country stays competitive in this age of knowledge that is our future

Educating more students better, especially minority students. We will need them and their talents if we want to sustain our quality of life.

Reaching out to schools at all levels to help lift the aspirations of all students and provide them with the best education available anywhere in the world.

Developing models of multicultural communities in which people of many different backgrounds and experiences can live together harmoniously and pursue common purposes.

Are we losing out in competition with Japan?

Actually, our system of higher education is the strongest in the world. I think that just about everyone agrees about that.

But it is true that our primary and secondary schools are not doing as well as those of many other countries in terms of basic skills and knowledge.

I think this is because for the first time in our history we are not investing enough in our children's future.

Here I am not talking about just money...but emphasis and attention...as a nation...as a state...as parents...

We have to rethink our goals and structures and priorities...

I believe that Americans are ready to renew their commitment to education...

I am hoping that universities will help to lead the changes that are needed.

There are problems on your campus...

Racism

Many campuses have experienced racial tensions recently, and Michigan is no exception.

But we have used this experience to learn and to grow...

It has helped us see the need for change, and we

have responded with an exciting array of broad initiatives we refer to as the Michigan Mandate designed to help us build a model for our country and provide improved educational opportunities for minorities.

It is important to remember that universities are not separate from society. They are a reflection of it.

So our problems have to do with difficult and perplexing national problems.

But this is not an excuse for doing nothing. Rather, I believe this University must lead the way...not simply for higher education, but for the nation in responding to the challenge of pluralism.

Quality of Campus Life

We don't just have one big social scene here. There are multitudes of smaller communities and groups in which students make a unique place for themselves.

I think it is the amazingly rich resources and cosmopolitan atmosphere that draws students and faculty here.

I think this is an important contribution to the student's education. I think many of our students are unusually independent, and they quickly master the environment and make it their own.

Crime, Rape, and Substance Abuse

These are problems that we are very concerned about.

We are a microcosm of the world around us.

We are no longer the sheltered ivory tower... if we ever were that.

We have tried to work with all members of our community to help stop crime and expect to have new proposals for this very soon.

On the issue of rape and sexual assault, we took the lead and established a Sexual Assault Awareness and Prevention Center that is doing a good job both in prevention and also in counseling any victims of such crimes.

We have coupled this with student escort services, NightOwl Bus schedules, and increased security on campus.

Substance abuse is a problem.

Fortunately the use of drugs on college campuses seems to have abated somewhat since the late '60s and early '70s.

But we are seeing quite a bit of alcohol abuse... particularly in fraternities...and this concerns us very much.

We are developing educational and prevention programs and also support programs for those in need of additional assistance.

Conclusion

Thanks for coming here.

I think we all too often seem remote and isolated... and we need to do a better job of communicating with the public about what we are doing... what we are about.

We need to reach out and get involved, and a program like this performs a real service.

I guess you've seen that both our students and faculty here...and our 300,000 alumni across the country are intensely proud of Michigan. They really love this place and what it stands for. So we are glad to have others see what we're about. Thanks for coming...and come back anytime!

Themes of the Future:

A few themes of the future...

The students we are educating today will spend most 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!

And yet the American society we serve has changed dramatically during the past century and continues to change at an ever accelerating pace.

It is therefore both appropriate and important to ask the question:

Is the University as we know it today really prepared to educate the citizens and serve the society of the 21st Century?

While it is always dangerous to speculate about the future, three themes seem very clear:

i) It will be 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...

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.

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 of America, since our country cannot afford to waste the human talent represented by its minority populations.

ii) It will be 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...

The fact is, a truly domestic US economy has ceased to exist. In slightly more than 5 years, US trade deficit has taken us from the world's largest creditor to the largest debtor nation.

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

iii) It will be 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.

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:

A transition in which..

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

How of much of this particular vision of the future will

actually come to pass?

Will the themes of pluralism, internationalization, and knowledge really dominate our future...

To be sure, change is not a predictable process.,

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?...

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

The Reality

Let's look beyond the myth at the reality for a moment:

1. Well over half of the students on our campuses are undergraduates...indeed, at Michigan we enroll over 18,000 undergraduates on our campus, most of them in our liberal arts college!
2. By essentially any measure, the undergraduates are the strongest students on our campuses (just as they are at other selective institutions such as Harvard, Yale, and Stanford).
Hence, whether measured by quantity or quality, a significant fraction of our efforts are (or at least should be) focused on undergraduates
3. The highly competitive marketplace both for admission to our undergraduate programs and graduates from these programs suggest we must be doing something right...
 - i) Applications for freshman admission have been increasing at Michigan at a clip of about 10% per year for some time -- despite the demographic decline in the number of high school graduates. This year we received over 19,000 applications for the roughly 4,500 positions in our freshman class!
 - ii) The demand for our graduates continue to increase -- whether from employers, professional schools, or graduate schools.
4. While we have all seen studies such as that by the Oberlin group suggesting that small liberal arts colleges are the key sources of students for our graduate and professional schools, the facts suggest otherwise. Recent NSF studies have confirmed that the largest(source of professionals, of scholars, of leaders of our society are our large, comprehensive, public research universities.
 - i) Indeed, at Michigan we have led the nation for many years in the number of our undergraduates who go on to professional schools such as Law and Medicine.
 - ii) But this should be surprising, since if the impact of a program is some product of its size and the quality of its students, then it is natural that our institutions would tend to lead the way.

Themes of the the past

We hear voices of concern -- whether from the academy, the foundations, or Washington -- or, as some put it, spanning the range from Bloom to Bloom County...

Alan Bloom...

Condemns the cultural and ethical relativism he sees in American youth...

Their music, lifestyles, careerism
Laments lack of shared goals...
loss of a secure religious foundation
lack of familiarity with classical texts
decay of moral education

"Our young people lack an understanding of the past and a vision for the future; they live in an impoverished present. Our universities, entrusted with their education, no longer provide the knowledge of the great tradition of philosophy and literature that made students aware of the order of nature and their place in it. Higher education fails to arouse or to nurture the self-knowledge that has always been the basis for serious humane learning."

Bennett: "Students deserve a university's real and sustained attention to their intellectual and moral well-being."

There is almost a sense that our universities have embraced a new type of philosophy of "literalism" first articulated earlier this year by Opus...

"You're born...
You live...
You go on a few diets...
You die."

But all too often I fear these voices also call for a return to a style of education characterizing our past...

The Need for a New Paradigm of Liberal Learning

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!

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?

Are we really educating for the future...

(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.

Yet, today we are educating students who will

spend most of their lifetime in the 21st Century. Hence, now is not the time to look solely to the past, but rather to look to the future and the challenges it will present.

Today, perhaps as never before, we need a new

paradigm, an educational model for the 21st Century.

Let's look at these challenges in a bit more detail...

1. Demographic Change: Diversity and pluralism

America is changing rapidly...

By 2020, one of three Americans will be a person of color.

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

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

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.

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

Full participation of underrepresented minorities is not just a matter of equity and social justice.

It will be the key to the future strength and prosperity of American, since our country cannot afford to waste the human talent represented by its minority populations.

America cannot afford the loss of this human potential, cultural richness, and 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 a social turmoil unequalled at any time in our history.

This is probably the most serious challenge 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 reflection and leader of society at large, higher education has a special challenge and responsibility to develop effective models of multicultural, pluralistic communities.

We must strive to achieve new levels of understanding tolerance, and mutual fulfillment for peoples of diverse racial and cultural backgrounds.

2. The Internationalization of America

It will be a future in which America will become "internationalized"... in which every aspect of American life 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...

Some signs...

Communications, travel, smaller world

Internationalization of commerce and industry...

Security and interdependence...

Nuclear weapons....

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

Some facts of life:

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

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

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
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.
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 dependent on other nations and peoples.
Among the University's many responsibilities and priorities, where does
one rank our responsibility to the world at large, the global village?
If the UM is to prepare to correctly position itself for an
increasingly polycentric world, it must begin to think more
imaginatively, more strategically.
This University is a truly international center of learning...
and it is important that you take advantage of this during
your education...
whether through formal studies of other cultures
whether through studies at one of our overseas campuses
or simply by going out of your way to get to know students
and faculty from other nations...

3. The Age of Knowledge

Looking back over history, one can identify certain
abrupt changes, discontinuities, in the nature,
the very fabric of our civilization...
The Renaissance, the Age of Reason, the Age
of Discovery, the Industrial Revolution
There are many who content that our society is
undergoing yet another such dramatic change...
As Erich Bloch, Director of the National Science Foundation
puts it, we are entering a new age, an "Age of
Knowledge"
The signs are all about us.
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:
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 less valued than 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.

3. Linkages to the Professions

The professions are and must be an intimate part of both the career objectives and the educational experience of our undergraduates.

Hence, the key must be to provide a liberal education through a professional education...not instead of it.

As Rhodes puts it, we must infuse professional education with the spirit of liberal learning...to see skills as a means to larger ends.

We must link education to the business of life...

4. Moral Education

Bennett: "Students deserve a university's real and sustained attention to their intellectual and moral well-being."

Agree with Bennett's general concern. After all, most of our colleges were originally founded to enhance the intellectual and moral well-being of students.

Until this century, educators throughout history not only sought to build the character of their students; they made this task their central responsibility.

But the theme of higher education in the 20th century was intellectual rigor.

The training of the mind was clearly separated from the development of character.

Today a reaction has set in, born of a recognition that the public needs common standards to hold a diverse society together.

A new respect for limits that carries with it concern concern for the moral values and restraints that unify communities and keep human conduct within acceptable bounds.

Bok has laid out an interesting framework for moral education:

Universities cannot avoid the task. Like it or not, they will affect the moral development of their students by the ways in which they administer their rules of conduct, by the standard they achieve in dealing with ethical issues confronting the institution, by the manner in which they counsel their students and coach their athletic teams.

1. Early Steps

The first weeks that students spend on campus are often critical in shaping their attitudes toward the institution and what they will take away from their experience.

2. Ethics and the Curriculum

Almost any well taught course can strengthen the capacity to think more carefully about intellectual problems, including ethical issues.

There are gaps that new courses in applied and professional ethics seek to fill. Properly taught, they can yield important benefits. By studying problems that commonly arise in personal and professional life, students will be more likely to perceive moral dilemmas they would otherwise ignore.

3. Rules of Conduct

Universities need to consider extending their efforts beyond the classroom. An obvious step in this direction is to have rules that prohibit lying, cheating, stealing, violent behavior, interference with free expression, or other acts that violate fundamental norms. Such rules not only protect the rights of everyone in the community; they also signal the importance of basic moral obligations and strengthen habits of ethical behavior.

A final aim in maintaining discipline should be to involve students in the process of devising and administering rules.

4. Acquiring Concern for Others

We should seek extracurricular activities that bring the participants into collaborative or communal relations--especially if someone with experience is available to offer advice and counsel when ethical challenges arise.

5. Ethical Standards of the Institution

Nothing is so likely to produce cynicism, especially among those taking courses in practical ethics, as a realization that the very institution that offers such classes shows little concern for living up to its own moral obligations.

6. The Institutional Environment.

What is truly destructive, therefore, is not the fact that immoral acts occur but the willingness of an administration to overlook them,

Conclusion

Universities can play an important role

- i) Their capacity to instill a greater respect for facts and a greater ability to reason carefully about complicated problems.
- ii) Their diverse community populated by students and faculty with many different backgrounds and points of view--an environment which teaches tolerance, a respect for differing values, a recognition of the complexity of human problems.

5. The Preparation for Leadership

Finally, we must recognize that institutions such as our university are responsible for developing the future leadership of our society.

Hence we should place new emphasis on the preparation for leadership of our students

Stress leadership traits in our educational environment

John Gardner suggests some of the key themes:

1. A commitment to the fulfillment of human possibilities.

The release of human potential is and must always be a central value.

Serious and sustained attention to the special problems of

- justice to historically deprived groups is essential.
2. Creating a sense of community
Shared values and goals are the chief resources leaders can count on in motivating people--the task grows difficult--eventually impossible--as shared values disintegrate.
Colleges might ask themselves whether their campuses are places where students can experience a sense of community.
 3. Renewal
Leaders have to be capable of self renewal, and capable of helping in the renewal of the systems over which they preside.
Must learn to balance continuity and change.
 4. Hope
Human beings are creatures who cheerfully act against the odds if they believe strongly enough, who reach for the unreachable stars and dream of impossible victories.
We must help young, potential leaders to value and to understand this side of our nature.
 5. Discipline of the Mind
The central task of a university, a task which separates it from all other social institutions, is the creation of an environment where the quality of mind and of its performance is always the central concern.
The spirit most likely to develop leaders is a disciplined use of reason, enlivened by daring and the courage to experience, and tempered by respect for what we can learn from others.
 6. Acceptance of Responsibility...
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."
Student activism and involvement have always been an important part of the learning process at Michigan.
Yet, while it is of paramount importance that we protect the fundamental freedom of students and faculty to explore new ideas and concepts, to state their beliefs and values, no matter how far they may be from mainstream thought...
...it is also essential to recognize that without the acceptance of responsibility, freedom is meaningless.
Indeed, true leadership consists not of simply protesting the existence of a problem...but rather consists of doing something positive about it.
out against injustice
In a very real sense, I suppose, the acceptance of responsibility along with freedom implies that one also accepts a commitment to move away from a negative stance of merely complaining or protesting... and rather making a positive effort to address the challenges before our society.
- We should seek to develop in our students a critical mind, free of dogma, but nourished by the humane values necessary for leadership in a changing, fragmented society. (Bok)

6. A Personal Plea: Scientific Literacy

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.

Yet in American universities we do not insist on a balanced education for our students--with providing a background necessary for coping with the increasing pace of scientific and technical knowledge that will be so critical to participating fully in a future of change.

Just think of the pace of discoveries of the past year...

- i) hole in the ozone layer over Antarctica
- ii) new supernova in the heavens
- iii) new high temperature superconductor
- iv) a new theory suggesting that all matter is composed of infinitesimal "superstrings" rather than point particles

Yet, at the same time public ignorance is extraordinary!

A recent NSF survey indicated that only 18% of those asked said they knew how a telephone works -- and only half of these gave the right answer.

Yet more than half of those surveyed indicated they believed we were being visited by aliens from outer space!

One of the fundamental reasons for this difficulty is that education in science is highly vertical, where one subject is built upon knowledge of another, whereas scholarship in the humanities is much less vertical; it is primarily extensive rather than intensive.

Unlike literature or social science, the highly vertical subjects of science are very difficult to learn after college. Unless one learns the language of science, mathematics, in college, one is likely to remain scientifically illiterate for life.

Yet, most colleges shy away from even attempting to provide a complete education. Indeed, most require only 2 or three semester courses in science.

It wasn't always this way. In 1850 Harvard required 25% mathematics and science including physics, zoology, chemistry, and biology.

What can be done? If MIT and Caltech demand that their science students take 25% in the humanities, perhaps we should require that humanists invest 20% to 25% of their effort in science...at least leading them up a gentle slope to a more considerable level of learning.

The tragedy is not simply our poor showing relative to other nations.

"Literacy" in science and technology will increasingly become a requirement for meaningful participation in life of the 21st Century.

By not addressing this issue in our universities, we may be condemning an entire generation of college graduates to a lifelong estrangement from the very knowledge that may govern their lives in the years ahead.

The challenge of change

While it is always hazardous to speculate about the future, there is yet another theme I can predict with some certainty... and that is the challenge of change itself...

We face a future in which permanence and stability become less important than flexibility and creativity... in which the only certainty will be the presence of

continual change...

Here we face a particular challenge, since most of us have been trained to think in terms of change as a linear, causal, and rational process.

We have been taught that by looking at the past, we can extrapolate to understand the future.

Yet, perhaps because of my background as a physicist, I have become increasingly convinced that change in most complex systems...fields of knowledge...or complex institutions such as universities...is

- i) highly nonlinear
- ii) frequently discontinuous
- iii) and usually stochastic...random in nature...

Just as with other institutions in our society, those universities that will thrive will be those that are capable not only of responding to this future of change...but, indeed, have the capacity to relish, stimulate, and manage change.

From this perspective, it may well be that the continual renewal of the role, mission, values, and goals of our institutions will become the greatest challenge of all!

To prepare us for such a future of change, I believe our institutions should keep in mind several essential themes...

What is the aim of undergraduate education at Michigan?

To prepare our students for a career?...

As doctors, lawyers, engineers,
...investment bankers???

Well, we will do our best, but that is not our real mission...

These challenges I have discussed suggest that the principal focus of an undergraduate education appropriate for the 21st Century will be the goal of liberal learning... that is, a liberal education as the preparation for a lifetime of learning.

We must take heed from T.S. Eliot's haunting passage:

"Where is the life we have lost in living?"

"Where is the wisdom we have lost in knowledge?"

"Where is the knowledge we have lost in information?"

While one might view a Michigan education as aimed at extracting knowledge from the vast information characterizing our society, let me suggest that our real goal is something far beyond that.

Our goal, indeed, the goal of any liberal education, was to help our students learn how to seek wisdom from knowledge -- and through that wisdom, prepare them to learn the art of life itself...

Perhaps Emerson put it best in his famous address at Harvard almost exactly 150 years ago:

"Colleges have their indispensable office, to teach elements. But they can only serve us when they aim not to drill but to create; when they gather from far every ray of various genius to their hospitable halls, and by the concentrated fires, set the hearts of their youth aflame..."

And, that is our real purpose...

To ignite the intellectual fires within each of our students...

We want to stimulate in each of our students a spirit of liberal learning...a spirit that will be with them for the rest of their lives...

In fact, despite your obvious academic talents, many...

most...probably ALL...of you will find Michigan a challenging experience.

...to some it will be through formal courses
...to others, the size and complexity of the university
...others of you will face challenges through athletics,
social activities...
...even challenges to your most fundamental beliefs

But, of course, that is what a college education is all about...

Not to simply learn facts...or prepare for a profession...

But rather, a college education is a time of challenge and discovery, of curiosity and intellectual growth, of learning about yourself.

It is a time to learn the art of life...

Piece of Advice 1: Michigan is not a small liberal arts college... it is a great research university.

This makes it a very large, complex, and exciting place.

To give you a sense of this, consider the following...

Parameters:

Enrollment: 34,000
Faculty: 2,600 (14,000 employees)
Budget: \$1.5 billion
Academic Units
17 Schools and Colleges
Hundreds of research centers, institutes,
and other types of interdisciplinary programs

Mission:

- i) Provides instruction, research, service
- ii) Spans all intellectual disciplines and professional areas
- iii) Attempts to sustain programs that rank among the nation's best in all areas (and succeeds...)

On this campus, we provide one of the most incredible intellectual smorgasbords in the world--a fascinating cornucopia of ideas supported by some of the finest facilities in the world -- one of the nation's great libraries, museums, laboratories, computers, concert halls, athletic facilities -- and most important, one of the world's great faculties.

Our philosophy is to use these extraordinary resources not simply to teach facts...indeed, students of your ability can learn facts, content, pretty much on your own.

Thus our goal is to expose you to the world's leading scholars, people who are struggling every day with creating new knowledge and interpreting and transmitted the accumulated knowledge of the past

Our goal is to teach you methods of inquiry...methods of critical analysis and thought...and beyond that, to expose you to the most fundamental of human values which are essential to our civilization.

This style of education can be frustrating at times, but we are convinced as are the other great research universities of this nation...that you will be far better prepared to assume

the role of leadership in society with this type of an education.

Piece of Advice 2: From this perspective, it is critical that you recognize that you will probably be learning more OUTSIDE of the classroom than in it!

This University is designed to provide a rich environment of intellectual experiences...

Whether it be through the wealth of formal instruction we provide, or through the array of cultural, social, athletic activities.

In fact, I suspect that most of you will end up learning more from your interaction with other students than you will from faculty!

Take advantage of this environment...

Get out and meet people and make new friends...

...broaden your horizons and become involved

Piece of Advice 3: Let me stress that your education at Michigan will not be a passive process.

While you will probably have more opportunities to learn on this campus than any other university in the nation, it is also true that they will not be presented to you on a silver platter.

We expect you to play an active role in your education!

To explore, to discover, even to challenge yourself

After all, life is one of those do-it-yourself experiences...

As the saying goes...

"At Michigan you will be given unusual freedom and responsibility...

The freedom to do what you want...

And the responsibility to choose the right things..."

Piece of Advice 4: Preparation for Leadership

As I noted earlier, you are an extraordinarily talented group of individuals...

It is likely that regardless of what happens during your college education, you will go on to become leaders of our society...

Hence, we believe it important that you prepare for this life of leadership now by taking advantage of all that this University has to offer.

You are probably aware of the debate over the importance and nature of a liberal education...the importance of moral education...

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

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

Bloom Country

Are our students indeed characterized

by the philosophy of "literalism", first

stated so succinctly by Opus...

"You're born...

You live...

You go on a some diets...

You die."

Of course, key in this debate is a suggestion that we must move beyond focusing simply on intellectual values in the education we provide...

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

We must also stress values of character such as...

Honesty
Integrity
Truthfulness
Nonviolence
Tolerance

As well as social values...

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

These core values that are so essential to Michigan students because of the special role you will play as the future leaders of our society.

Challenges for Today--Opportunities for Tomorrow

Think about it for a moment...

The students we are educating today will spend most of their lives in the next century...they will be citizens of the 21st Century...

Yet we, their educators, are very much products of the 20th Century...

And our institutions, the university of today, is in reality a product of the 19th Century!

It is therefore important to ask whether the university as we know it today is really prepared to educate the citizens and serve the society of the 21st Century?

While it is always dangerous to attempt to predict the future, three themes of 21st Century America seem clear:

- i) the changing nature of the population of our nation
- ii) our growing dependence on the global community
- iii) our shift from a resource-intensive to a knowledge-intensive society

Let me consider each of these themes for a moment...

1. Demographic Change: Diversity and pluralism

America is changing rapidly today...

Our population is aging as the baby boomers enter middle age, and the number of young adults declines.

Indeed, today there are already more people over the age of 65 than teenagers in this nation...and this situation will continue for decades to come.

The United States will simply not be a nation of youth again in our lifetimes

This fact poses a most serious challenge to institutions such as universities which have traditionally served the young.

But there is a far more profound change occurring in the population of our nation.

The United States is rapidly becoming the most pluralistic, multicultural nation on earth.

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.

In this future, the full participation of currently underrepresented minorities will be of increasing concern as we strive to realize our commitment to equity and social justice.

But, in addition, this objective will be the key to the future strength and prosperity of America, since our nation cannot afford to waste the human talent represented by its minority populations, this human potential, cultural richness, and social 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, increased social turbulence, and most tragically, we will have failed to fulfill the promise of democracy upon which this nation was founded.

This is probably the most serious challenge facing American society today. While it is true that universities cannot solve this problem alone, we must not use this fact as an excuse for doing nothing.

Rather we must intensify our efforts to seek full participation of underrepresented minorities among our students, faculty, staff, and leadership.

As both a reflection and leader of society at large, we have a special challenge and responsibility to develop effective models of multicultural, pluralistic communities for our nation.

We must strive to achieve new levels of understanding, tolerance, and mutual fulfillment for peoples of diverse racial and cultural backgrounds.

2. The Internationalization of America

It will be a future in which America will become "internationalized"... in which every aspect of American life must be viewed from the broader context of participation in the global community...

Whether through travel and communication, the arts and culture, the internationalization of commerce, capital, and labor, we will become increasingly dependent on other nations and other peoples.

Further, as the destination of roughly half the world's immigrants, the United States is rapidly becoming a "world nation" with strong ethnic ties to every part of the globe.

Understanding cultures other than our own will become necessary not only for personal enrichment and good citizenship, but indeed, necessary for our very survival as a nation.

If our institutions are to serve America in its role as a member of the global community, we must think and act more imaginatively, more aggressively, and more strategically to strengthen our role as truly international centers of learning.

3. The Age of Knowledge

Looking back over history, one can identify certain abrupt changes, discontinuities, in the nature, the very fabric of our civilization...

There are many who contend that our society is once again undergoing such a dramatic shift in fundamental perspective and structure as we enter a new age, an age of knowledge.

The signs are all about us.

Today we are evolving rapidly to a new post-industrial, knowledge-based society, just as a century ago our agrarian society evolved through the Industrial Revolution.

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

We are increasingly surrounded by radical critiques of fundamental premises and scholarship...

In many fields, the knowledge base is doubling every

few years...indeed, in some fields the knowledge taught undergraduates becomes obsolete even before they graduate!

The typical college graduate of today will likely change careers several times during a lifetime...

Hence a college education 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.

As our society becomes ever more knowledge-intensive, and hence ever more dependent upon educated people and their ideas...

It will become ever more dependent upon our research universities as primary sources of new knowledge and those capable of applying it.

To state and federal government

As we prepare to enter the Age of Knowledge, our ability to sustain the strength of our state and our nation...to achieve the quality of life for our citizens...will be determined, more than any other factor, by how we develop, nurture, and educate that most precious of resources, our people.

While it is true that our state and our nation have developed the finest system of higher education in the world...

We must also remember this resulted from the willingness of past generations to look beyond the needs of the present and to invest in the future by building and sustaining educational institutions of exceptional quality--

Institutions that have provided those of us in this auditorium today with unsurpassed educational opportunities.

Today's public leaders have inherited these marvelous institutions that represent the commitments and sacrifices of previous generations;

They face the challenge of being responsible stewards to preserve and enhance these precious resources to serve generations of the future.

To the public at large

It is important for to recognize that your public universities are deeply committed to serving the society that built and sustains them.

They are not working on their own agenda... but rather an agenda formed to respond to your needs.

While it is always tempting to ask "what have you done for me lately", it is also important to imbed this challenge to higher education in the dual context both of the history of past service...and the challenges that will face our society in the future.

Higher education represents one of the most important investments a society can make in its future...since it is an investment in its human resources...

Our nation has always believed deeply in providing each generation with the means for a better life...

Our parents sacrificed for us...and we must be prepared to sacrifice for our children...

We simply must re-establish the priority of both our personal and public investments in education, in the future of our children, and hence in our own future...

Michigan's Heritage of Leadership

Although 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 the state.

So too, the organic act establishing the 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...

First to blend the classical curriculum with the German approach stressing faculty involvement in research and dedicated to the preparation of future scholars.

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)

Beyond tradition, however, there are other characteristics of our University today which position us well for this role of leadership.

Change and Renewal

For while it is always hazardous to speculate about the future, there is yet another theme I can predict with some certainty... and that is the challenge of change itself...

We face a future in which permanence and stability become less important than flexibility and creativity... in which the only certainty will be the presence of continual change...

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

In such fields we have ceased to accept that there is any coherent or unique core of wisdom that serves as the basis for new knowledge...

We've seen simply too many instances in which a new concept has blown apart our traditional views of a field...

quantum mechanics
the molecular foundations of life...

We are increasingly surrounded by radical critiques of fundamental premises and scholarship...

Profound, new ways to approach knowledge...

As the pace of the creation of new knowledge accelerates, it seems apparent that we are entering a period in which permanence and stability become less valued than flexibility and creativity... in which the only certainty will be the presence of continual change...

and the capacity to relish, stimulate, and manage change will be one of the most important abilities of all.

Part of the problem is that most of us have been trained to think in terms of change as a linear, causal, and rational process.

We have been taught that by looking at the past, we can

extrapolate into the future.

A Return to Fundamental Values

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...values of the mind....

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

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
- Courage
- Tolerance and mutual respect

So too, we must bear in mind those all-important values which characterize civilized societies:

- Caring and concern and compassion
- Cooperation and communication and civility

These are the values that pull us together as a community.

In a future characterized by rapid and unpredictable change, a future dominated by the themes of pluralism, internationalization, and knowledge, it seems clear that our institutions will increasingly become the crucibles in which the new ideas and social structures capable of responding to this future are created.

Here we must take care that the ferment and controversy that always surround the birth of new ideas does not tear apart our communities.

We must recognize that in this future of change, these values of community will provide the bonds that must unite us...

The Need for a Liberal Education

These challenges suggest that the principal focus of an undergraduate education appropriate for the 21st Century will be the goal of liberal learning... that is, a liberal education as the preparation for a lifetime of learning.

Alfred North Whitehead, in his "Aims of Education", puts it best:

"Though knowledge is one chief aim of intellectual education, there is another ingredient, vaguer but greater and more dominating in its importance. It is wisdom. You cannot be wise without some basis of knowledge, but you may easily acquire knowledge and remain bare of wisdom.

Wisdom is the way in which knowledge is held. It concerns the handling of knowledge, its selection for the determination of relevant issues, its employment to add value to our own immediate experience. This mastery of knowledge which is wisdom is the most intimate freedom obtainable.

The only avenue toward wisdom is by freedom in the presence of knowledge, the

only avenue towards knowledge is by discipline in the acquirement of ordered facts."

To stress this point, I usually take the opportunity at University rites of passage such as Freshman Convocation or Commencement to recall that haunting passage from:

T.S. Eliot ("The Rock", 1934)

All our knowledge brings us nearer to our ignorance.
All our ignorance brings us nearer to death.
But nearness to death no nearer to God.
Where is the Life we have lost in living?
Where is the wisdom we have lost in knowledge?
Where is the knowledge we have lost in information?
The cycles of Heaven in twenty centuries.
Bring us farther from God and nearer to the Dust.

We must not view an education as simply aimed at extracting knowledge from the vast information characterizing our society.

Instead, our goal, indeed, the goal of any liberal education, must be to help our students learn how to extract wisdom from knowledge -- and through that wisdom, prepare them to learn the art of life itself...

What have we tried to do at Michigan?

Prepare you for a career?...

As doctors, lawyers, engineers,
...investment bankers???

Well, we will do our best, but that is not our real mission...

These challenges suggest that the principal focus of an undergraduate education appropriate for the 21st Century will be the goal of liberal learning... that is, a liberal education as the preparation for a lifetime of learning.

And this has been our real purpose...

We have sought to stimulate in each of you a spirit of liberal learning...a spirit that will be with you for the rest of your lives...

We have sought to equip you to find the wisdom in knowledge... and hence to find the life that is in living"

The Hazards of Predicting the Future

In conclusion, my crystal ball suggests a future of challenge and responsibility, opportunity and excitement...

As the United States becomes a pluralistic world nation, intensely dependent upon knowledge--upon educated people and ideas--and hence intensely dependent upon these marvelous, mysterious, and complex institutions we know as research universities.

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

Will the themes of pluralism, internationalization, and knowledge really dominate our future...

To be sure, change is not a predictable process..

There is always a 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?...

Remember once again that fork in the road...

one path leading to a preservation of the University as a great university...but only one among many...

the other path leading not only to distinction but to leadership...

I believe that we should take this second path... that we should summon the vision and courage... the dedication and commitment...to accept our heritage of leadership in higher education...

I believe that the 1990s and beyond can be a time similar to the late 19th century when the University of Michigan was a primary source for much of the innovation and leadership in higher education in this nation.

And what more exciting mission could we have than to accept this challenge by striving to develop a new model of the research university capable of responding to the changing needs of our state and our nation...

The challenge of making the University of Michigan the model for the University of the 21st Century.

Concerns...

Needless to say, the same challenges of pluralism, of internationalization, and of this age of knowledge that is our future will also pose great challenges to our state.

Indeed, I am absolutely convinced that our State faces a very unusual period of challenge in the decade ahead...a watershed, in a sense, from which we can either emerge at a national leader...or as an also run... or perhaps even worse...as an Appalachia...

Maintaining Michigan's competitive edge requires attention to our traditional strength -- people and research -- and a strong offensive strategy based on these resources.

Central theme is that education, broadly defined, will play a pivotal role in the coming economic transition and its impact on individuals.

Previous economic transformations were closely associated with major public investment in infrastructure such as railroads, canals, electric networks, and highways. In the coming economic transition, an equivalent infrastructure will be an educated population.

Quite frankly, the choice will be ours...whether we choose to continue our tendency of recent years to spend our resources only to meet the needs or desires of the moment... or whether we can develop the vision, courage, and discipline to invest in the future of this state...not just for this year or next...but for the next generation...our children...

The Dangers...

Who is to blame???

Certainly not our elected public officials...
...since they believe they are responded to the wishes of the electorate...

Rather we should point the finger of blame at ourselves...

We see ourselves caring about the future, but we are not preparing for it.

We seem to have developed an "Eat dessert first, life is uncertain" attitude that is rapidly mortgaging the future of our children.

Is our state willing to make the investments necessary today... to build the prosperity we desire for tomorrow?

Education always falls at the bottom of the list of social needs.

Even though surveys indicate public supports education, this has yet to be translated into priorities.

Every other need or desire seems to come before the education of the youth...

Is this because of an aging electorate?

Is it the "Me Generation" of the 1960s now growing up into mature Yuppies?

No. Rather it is the fact that for many years now we simply have not been willing to invest in our future...and the future of our children... We have chosen instead to mortgage this future to pay for mistakes made in our past. Six-month planning horizon...desire for immediate results...inability to identify the investments which have to be made today to yield the objectives for tomorrow. The old T-shirt expression: "Eat dessert first, life is uncertain" reflects our present tax policy.

The attitude we have taken toward our most precious resource, our youth, is both callous and alarming.

I simply cannot accept the excuse that "we can no longer afford this investment in the educational opportunities we offer our youth".

To be sure, the immense social needs for welfare assistance, medical care, prisons, and all of the other programs that drain our tax dollars are compelling.

However, by choosing to meet these needs with resources taken away from our system of public education rather than through reforms in our tax structure or political system, we have in reality mortgaged our future by withdrawing the educational opportunities from our youth.

Michigan has had a long tradition of wealth and a caring attitude for its populace. But it seems clear that if priorities are not changed, Michigan will become poorer and poorer and finally it will not be able to meet the "caring needs" of its people. It will then have become a "have not" state.

We seem to have forgotten the commitments and sacrifices that past generations of citizens have made to build educational institutions of exceptional quality -- institutions that have provided many of us for years with unsurpassed educational opportunities.

All human societies embody to endow their children with an enlarged and enriched culture, for transmission to their successors.

If it is not to be our young people and their work that will gain us a secure place among nations and our better life for our citizens, then what will it be instead? And if we fail to invest adequately in the successor generation, then what kind of caretakers of our heritage and theirs will they turn out to be?

We are a nation that has always believed deeply in generational improvement--in the prospect that things will be better for our children.

Americans must put aside their suspicions and answer that call, because the result of failure will be that 40 years from now a generation will stand where we are today and know that things are, for the very first time in history, worse than they were for their fathers and mothers.

We simply must re-establish the importance of both our personal and public investments in education, in the future of our children, in our own future, at the local level if Michigan -- indeed, if our nation -- is to face the challenge of the age of knowledge.

A different way to look at it:

The Investment in Human Capital...

The real issue here is not the investment in education...
it is the priority that we as a nation place on investing in
our children.
We should feel both embarrassed and ashamed for robbing
our youth to pay for our own excesses...
But let's take the cynical view that responsibility and stewardship will
simply not be a compelling enough argument to reprioritize the
importance of investing in human capital...in our youth.
There is another viewpoint, however...
If we do not invest in the youth of today, they will not become a
sufficiently productive workforce to keep the checks coming
to those of us who retire in future years!!!
By 2000, there will be only three workers to support each
retiree...and one of these will be minority!
Look at it another way...which is the better investment...
\$3000/y to keep a preschool kid on track
\$5000/y to achieve a strong K-12 education
\$10,000/y to sustain strong college education
or \$25,000/y to put someone in jail...

Concluding Remarks

In conclusion, I would like to direct my final remarks to the people
of the State of Michigan
For over 170 years there has been an unusually
strong bond between the people of this state and
your university, the University of Michigan.
Generation after generation of Michigan citizens have
reaffirmed a commitment to building and sustaining
an institution capable of providing to their sons and
daughters an education equal to the best in the nation.
Your ancestors sought an institution capable of attracting to
their state the most outstanding scholars, scientists,
engineers, doctors, lawyers, and other professionals
essential to prosperity and well-being.
They recognized the need for an institution capable
of creating through its teaching, research and
scholarship, the new knowledge and human capacities
necessary to economic growth and development and
to the fuller realization of human potential.
And they sought an institution which could address,
through a myriad of public service activities, the
many challenges facing our state and our nation.
This sustained public investment and confidence in the University
over the decades has enabled it to serve the state in
all of these ways and more. Through this unique
partnership, the University and its activities in education,
research, and public service have served Michigan and
its citizens well.
Today our state faces serious challenges that
will call once again on the vast resources of this
institution---
the challenge of pluralism...
the challenge of participation in a global community...
the challenge of the Age of Knowledge that is
our future...
...and, of course, the challenge of change itself.
Indeed, perhaps at no previous time in our state's
history has there been a greater dependence upon this
this University...
for the people it educates...
the knowledge it produces...
and the service it provides.

It is true, indeed, that the University of Michigan belongs
to the people of Michigan...it is your university.
But it is a university built and sustained through the
commitments and sacrifices of your ancestors...
And it is a university that must be preserved and
strengthened through your commitments today if it is
to serve your descendants tomorrow.
Through this unique partnership, between a people and their
University, we face together
a future of challenge and responsibility...
a future of opportunity and excitement.
A future in which the University of Michigan is deeply
committed to serving the State of Michigan...
and by serving our state, serving our nation and the world.