

## **Undergraduate Education**

### **Introduction**

#### **Across the nation, colleges and universities**

are once again focusing their attention on the nature and the quality of undergraduate education.

Perhaps goaded on by the criticisms from the right--Bloom County and ex-Secretary Bennett Or the criticisms from the left for a new style of learning based on nonwestern cultures and new forms of thought such as feminism, liberation theology, and so on.

Or because of the recognition that the spectre of an abrupt decline in the number of high school graduates as we slide down the backsides of the post-war baby boom threatens our supply of outstanding students...

Or, perhaps simply because of the cyclic nature of these concerns, which seem to rise once again to the top of our agenda every decade or so...

#### **Two recent personal experiences events**

have focused my own ideas on the nature of undergraduate education at Michigan:

##### **1. Harvard Conference**

In November, 1986 I had the pleasure of attending the Conference at Harvard when Ernie Boyer introduced the Carnegie Foundation report on the undergraduate experience in America.

Interestingly enough, only a very small handful of the invited participants were from public research universities such as ours.

On several occasions I was cornered in the halls and asked by my colleagues:

"Why is Michigan here? You people aren't concerned with undergraduate education, are you?"

In fact, it was this perception -- rather, misperception -- of the role of the research university in undergraduate that disturbed me more than any of the other issues raised by Dr. Boyer and his colleagues.

Indeed, even our own undergraduates feel this way... in our 1986 Enrollment Decision project, we found that both those students that choose to come here, and those that go elsewhere, believe that UG education is a low priority of the University.

##### **2. Commencement Exercises, 1988**

Looking out at the turbulent masses of graduates engaged in their own strange rituals of celebration and totally ignoring the ceremony and speakers attempting to address them, I could not help but wonder whether we had indeed adequately prepared these students to enter " the society of learned men and women...and to admit them to all of its rights and privileges"...

#### **Hence, it seemed appropriate that before**

discussing a number of the initiatives we have launched in recent months, I first begin with a few personal observations about the nature of undergraduate education in the comprehensive research university, in general, and at the University of Michigan, in particular.

## The Myths

### We all know the myths...

#### Myth #1:

When one thinks of Harvard and Yale, one thinks first of Harvard College and Yale College -- of their superb undergraduate colleges...since these are perceived of as both the focus and the intellectual soul of such superb private institutions.

What do you think of first when someone mentions Michigan or Michigan State ...or Minnesota or Ohio State Football, perhaps? Fraternities?

I suspect that one first tends to think of the commitments of these great public universities to the professions... to their schools of Law and Medicine, Engineering and Agriculture...to their responsibilities to serve the public...to their great research programs... But, probably not about their commitment to undergraduate education.

#### Myth #2:

When finally asked to focus on undergraduate education in Big Ten institutions, the public has images of thousands of students wandering in and out of large lecture courses taught by foreign teaching assistants...

On their way from their fraternity or sorority to the football stadium...

Identified only by their student ID number...

## 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

- professiona 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.

**Questions:**

**Let's set aside both the myths and the realities for a moment,**  
and address the most critical questions of all:

- 1. What is the role of the comprehensive research**  
university in undergraduate education?
- 2. How effectively are our research universities...**  
in particular, our great public research universities  
such as the University of Michigan, responding to  
the challenge of undergraduate education?

**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 academic disciplines,  
professional schools, social and cultural activities  
Unusual degree of diversity of students, faculty, and staff  
Unusual degree of participation of faculty and students in  
University decisions  
Unusual commitment 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  
Quality, breadth, and scale...  
We attempt to do a great many things...  
to involve and benefit a great many people...  
and we attempt to do them all very well!  
Teaching, research, and service  
Undergraduate, graduate, professional education  
and faculty development

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 many of the world's  
leading scholars...  
with resources unmatched elsewhere in our society...  
whether in the 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...**

- 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
- 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.

#### **Activities in Undergraduate Education**

##### **Of course, for several years, long before the Carnegie**

Foundation report, there has been a resurgence of efforts to reexamine and improve undergraduate education in our public research universities.

##### **Indeed, essentially every major university I am familiar with**

has some level of activity well underway.

##### **Why?**

Cyclic??

Well, I suppose one could explain this by saying that curricular reform is cyclic, and the pendulum is now swinging back after the permissiveness of the 1960s...

Market concerns??

Perhaps it is also due to market concerns.

We are all too aware that the population of high school graduates will drop in our part of the country by 25% to 30% by the early 1990s.

There is nothing like a demographic crunch -- to stimulate educational institutions to improve their product.

Stewardship??

I noted earlier the remarkable quality of the students now entering our institutions.

Perhaps our renewed focus on undergraduate education is the result of a higher motive to be a responsible steward of these extraordinary human resources.

##### **Preoccupation with Professions**

But it is also true that the focus on undergraduate education may be part of a needed rebalancing of the priorities of our institutions.

For several decades -- indeed, since WWII, most of our large public research universities have focused on building strong programs in the professions... in Law, Medicine, and Business... in Engineering and Agriculture...

Perhaps this was because of a sense of public responsibility...

perhaps it was due to the demand from students for these programs...or the demand from employers for their graduates...

But, whatever the reason, it is probably true that most of us have invested the lion's share of our resources for many years in the professions at the expense of the quality of our undergraduate programs.

Yet, as our colleagues in the private sector have known for so long, the cornerstone of any distinguished academic institution is its undergraduate college -- and those intellectual disciplines that derive from these programs.

In the long run, your strength in the professions will be determined by your strength in this intellectual core...

**What is happening, therefore, is not a revolution!**

We do not need a revolution!

Rather it is a renewal!

**A renewal in our commitments to quality undergraduate**

education...stimulated by our sense of responsibility to our students, and our aspirations of excellence for

**Rebalancing is Needed**

Note: We do not need a revolution!

Rather we need a renewal...a rebalancing...

**But where should we head...**

**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...

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

**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  
unequaled 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 Michigan Initiatives**

#### **Note special edition of the University Record...**

##### **Goal:**

To launch a series of initiatives designed to improve the quality of undergraduate education at Michigan

Common thread: Grassroots involvement...

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

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

##### **Phase I:**

###### **1. The Undergraduate Initiatives Funds**

\$1 million per year to support innovative projects

Program will provide an ongoing source of support, up to \$1 million per year, for a wide range of experiments designed to improve quality of undergraduate education.

Looking for good ideas...but prepared to make base commitments from other sources to support successful ventures.

Categories of awards:

- i) promoting critical thinking and writing skills
- ii) Creating a new spirit of liberal learning
- iii) Promoting acceptance of pluralism and diversity
- iv) Promoting improved faculty-student interactions

First awards:

Development of new core curriculum in liberal arts

F-S revision of sciences (math, chem, bio)

Integration of arts into UG curriculum

Theatre, dance, electronic music

Counseling and Pluralism

Career planning in liberal arts

Sensitivity training

Student activities

UG colloquium

Faculty "fellows" program in residence halls  
Safewalk program  
Alternative Career Center

TA training

2. School and College Initiatives

LS&A

- i) Collegiate Council
- ii) Associate Dean for Freshman/Sophomore Years
- iii) Special Assistant to the Dean

Engineering

- i) Commission on UG Engineering Education
- ii) Associate Dean for UG and Grad Instruction

Natural Resources

- i) Major curriculum revisions underway

**Phase II:**

1. Focusing of the Undergraduate Initiatives Fund  
Will work directly with schools...not open solicitation
  - i) The unique nature of undergraduate education in the research university
  - ii) Linkages to the graduate disciplines and professions
  - iii) Enriching the intellectual life of undergraduate students
  - iv) The role of the sciences in a liberal education
2. The Thurnau Professorships  
To honor faculty with extraordinary achievements in undergraduate education
3. Central Campus renovation projects
  - i) Renovation of UGLI
  - ii) Renovation of all Central Campus classroom space
  - iii) Angell-Haven Courtyard Project
4. Residence Hall Study  
Appointment of commission to study ways of better integrating academic programming into residence hall environment

**The Role of the Administration**

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

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

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

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

**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...