#### **New Faculty Welcome**

## Welcome to University

Fall is an exciting time

a time of renewal...

even more exciting for new faculty...

finding a place to live, park, ....

find out how to get football tickets...

But at least you have warm weather...

This December will mark the 20th year

since my family and I first arrived here from Pasadena.

When we left Pasadena it was sunny and in the high 80s.

However, as we stepped off the plane in Metro into snow and subzero temperatures, with no warm clothing and children who had never seen snow, we wondered whether we have made the right choice.

Two decades of service as a faculty member in this University is testimony to the fact that we've become hooked on Michigan. We have found our warmth through friends and colleagues...indeed we now feel like native Michiganders!

And we have found this University to be a truly extraordinary place for teaching, learning, and living... for scholarship and for service.

## **Images of Michigan**

When we hear the words

"The University of Michigan",

We think of those traditional images of any college...

- Great faculty challenging and exciting students in the classroom..
- Students studying in our many libraries
- Scientists toiling away late in the evenings in our laboratories.....stiving to understand the universe
- Scholars pouring over ancient manuscripts in

our collections of antiquity

But just what is this institution,

this force that has had such an impact on our lives?

But there are some very special images of Michigan

Ann Arbor on a Saturday afternoon in the fall...

afternoons in the fall as 105,000 fans cram into

Michigan stadium to watch the Wolverines...

Or perhaps the Michigan of the Big Chill...

The tradition of student involvement helping to awaken the conscience of a nation...

The Teachins of the 1960s against the war in Vietnam EarthDay in the 1970s to raise concerns about the environment

Our celebration of Martin Luther King Day last month with an educational experience involving thousands to highlight the importance of tolerance and mutual understanding

There is Michigan of the Arts

...or Leonard Bernstein celebrating his 70th birthday in Hill Auditorium with the Vienna Philharmonic...

...or the visits of Ella Fitzgerald or Toni Morrison or

Jesse Norman, Kurt Mazur and the

Leipzig Gewandhaus Orchestra

University Musical Society

Schools of Music and Art

...or the scores of spectacular student productions, plays, concerts, dances, operas, and, of course demonstrations and protests, that have enlivened this campus over the past year.

There is also the caring Michigan as seen by the over 750,000 patients a year who are treated by the UM Medical Center,

Or the Michigan as Silicon Valley East, working

closely with Michigan industry and government to build the high-tech infrastructure to create new companies and new jobs to strengthen and diversity our existing industrial base...

...with exotic new technologies such as integrated manufacturing systems machine intelligence optoelectronics computer networks

...a new \$5 B infrastructure in the southeastern Michigan Michigan area

Or the Michigan which attracts to our state almost almost 400 billion dollars of R&D funding each year...not to mention many of the world's leading scientists and engineers

Or the Michigan of the "cutting edge",
which conducts the research that changes our lives...
as evidenced, for examply, by announcement earlier this
monththat a Michigan team had identified and cloned
the gene responsible for cystic fibrosis,
thereby opening up the possibility of saving
thousands of lives every year.

Or Michigan as the University of the World...

Long reknown as a truly international center of learning...

Whether it be through our great area studies programs

the China Center, producing advisors to presidents...

Japanese Studies, Southeast Asian Studies

Russian and Eastern European Studies

Or our alumni throughout the world...

Or the Michigan of outer space...

...Apollo 15...the Michigan mission to the moon...

...which not only established the first UM Club in space...

...but named a crater after Michigan on the moon.

And, of course, there is the Michigan as the educator, attempting to provide, in the worlds of one of our first presidents "an uncommon education for the common man" an education as good as any available in the world for all citizens, regardless of race, creed, and socioeconomic background.

to over 400,000 alumni...

It is important to note these different perspectives of the University because all too often we tend to think of these marvelous and complex institutions in one-dimensional images that reflect only our particular interests or needs of the moment...

...when we read about student unrest on our campus...

...or see Notre Dame run back two kickoffs against us...

...or open the tuition bill for our son or daughter...

In fact, perhaps the best way to think of a university is to recognize that our primary role is

"to invent the future"...

...through the knowledge discovered on our campuses...

...and the graduates we educate that can carry forth this knowledge and apply it to society.

# What are we...and how we get this way?

Images of the University

To the public:

...students in classroom

...elderly professor teaching Shakespeare

...almost a high school image

To ourselves

...the Oxbridge image

...detached critic of society

In reality we are something quite different: U of M, Inc.

Oncampus education:

...50,000 students on three campuses

...\$800 M per year (only about 25% of budget)

#### R&D:

...major FFRDC

...\$440 M per year

Health Care: UMMC

...850,000 patients per year

...\$1.2 B per year

Managed Care: M-Care

...70,000 "managed lives" (growing to 1.5 M)

...\$150 M per year

Captive Insurance Company: Veritas

...\$200 M per year

Knowledge services

...Continuing Education

...Extension

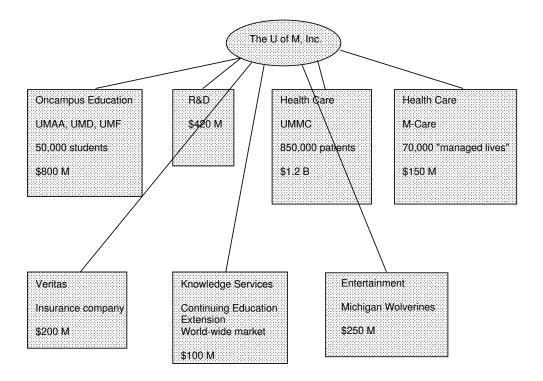
...World-wide markets

...\$100 M per year (and growing rapidly)

Entertainment: Michigan Wolverines

...\$250 M per year

Diagram: UofM, Inc.



It is true that Michigan is a prime example of

"a loosely-coupled, adaptive system, with a growing complexity as its various components respond to changes in the environment"

It is also true that Michigan is

"a learning organization".
...a holding company for 3,000 entrepreneurs

And that it has evolved over the years due to

- ...creativity and energy of its faculty (as entrepreneurs)
- ...the efforts of its many components to excell
- ...a "transactional" culture where everything is up for negotiation

But, look where this has led us! UofM, Inc!

(Note: Some of us know precisely where and what UM is today!)

#### **Good News**

UM is better, stronger, and more exciting and vital than ever Quality

National rankings highest in 25 years Ebb and Flow analysis indicates we're holding our own

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People
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Michigan Mandate:

Students: 12% to 23% (AA: 4% to 8.5%)

Faculty: 9% to 12% (AA: 2.6% to 4.8%)

Michigan Agenda for Women

Bylaw 14.06

Student Activities

From Americorps to Sunrunner to Leadershape

Financial strength

Not only accommodate loss of state support, but more diverse and robust resource portfolio (\$2.5 billion/year)

Faculty salaries:

Moved past UC to now rank #1 among publics

(consistent with policy)

Professors: #11 (just about to pass Cornell)

Harvard, Princeton, Stanford, Yale, Chicago, Columbia

Penn, Northwestern, Cornell ahead of us

Assoc Prof: 6th

Asst Prof: 8th

Rise to #1 research university in nation

Campaign: \$900 M (\$150 M per year)

Endowment: \$300 M to \$1.3 B

Administrative costs: Lowest among public & private peers

(4% of total expenditures)

Wall Street: Credit Rating: AA1 (highest among public universities Physical Plant:

Within 5 years, will have completed rebuilding campus

Central Campus

North Campus

Medical Campus

South Campus

\$1 billion!

**Auxilary Activities** 

UM Hospital most successful in nation UM Athletics rated #1 in US

#### Excitement

Undergraduate Education
Professional Schools (Medicine, Business, SILS,...)

#### **But...concerns**

Throughout past decade, we have all worked to make

UM the finest university in the world, but within the 20th Century
paradigm

Sometimes I worry that I may be sounding like the CEO of IBM ten years ago when he briefed his Board of Directors, congratulating them on building IBM into the strongest company in the world.

And yet look at them now.

They built the finest 20th Century corporation in the world.

The only problem was that our society was already moving into the 21st Century.

In fact, I wake up at night thinking...

...IBM...GM...UM...

...are we next?

Yet, there are many signs that this paradigm may no longer be adequate to serve a rapidly changing society in a rapidly changing world.

The University as a 'knowledge server"

## The Challenge of Change

We are living in the most extraordinary of times.

Who would have predicted a few years ago

the collapse of communism,

the end of the Cold War,

the redefinition of the world economic order

the direct manipulation of the human gene to cure disease theInternet phenomenon, linking 20 million people worldwide digital convergence, in which phone and computer companies

merge with the entertainment industry

Yet all of these events have happened,

and the pace of change continues to accelerate.

Indeed, many believe that our civilization is going through a period of transformation just as profound as those that occurred in earlier times such as the Renaissance or the Industrial Revolution, except while these earlier transformations

took centuries to occur, those characterizing our times will occur in a decade or less.

Some portray the 1990s as a countdown toward a new millennium, as we find ourselves swept toward the new century by these incredible forces of change.

But the events of the past several years suggest that the 21st century is already upon us, a decade early.

Note Peter Drucker article in Atlantic Monthly

This last point is very important for today we are seeing a dramatic shift in the fundamental structure, nature, and perspective of our society.

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.

Key in this transformation is the emergence of knowledge as a strategic commodity, as important as natural resources or low-skilled labor were at earlier times.

This new critical commodity knows no boundaries.

It is generated and shared wherever educated, innovative, and creative people come together; and as we have learned, it spreads very quickly.

Indeed, the "age of knowledge" in which we now find ourselves is accompanied by a fundamental transformation in our economy that is reshaping virtually every product, every service, and every job

throughout our country and indeed the world.

The Changing Nature of the University's Fundamental Missions

One frequently hears the primary missions of the university referred to in terms of teaching, research, and service.

But these roles can also be regarded as simply the twentieth century manifestations of the more fundamental roles of creating, preserving, integrating, transmitting, and applying knowledge.

From this more abstract viewpoint, it is clear that while these fundamental roles of the university do not change over time, the particular realization of these roles do change --and change quite dramatically, in fact.

Consider, for example, the role of "teaching," that is, transmitting knowledge.

While we generally think of this role in terms of a professor teaching a class of students, who, in turn, respond by reading assigned texts, writing papers, solving problems or performing experiments, and taking examinations, we should also recognize that classroom instruction is a relatively recent form of pedagogy.

Throughout the last millennium, the more common form of learning was through apprenticeship. Both the neophyte scholar and craftsman learned by working as apprentices to a master.

While this type of one-on-one learning still occurs today, in skilled professions such as medicine and in advanced education programs such as the Ph.D. dissertation, it is simply too labor-intensive for the mass educational needs of modern society.

The classroom itself may soon be replaced by more appropriate and efficient learning experiences.

Indeed, such a paradigm shift may be forced upon the faculty by the students themselves. Today's students are members of the

"digital" generation. They have spent their early lives surrounded by

robust, visual, electronic media--Sesame Street, MTV, home computers,

video games, cyberspace networks, and virtual reality. They approach

learning as a "plug-and-play" experience, unaccustomed and unwilling

to learn sequentially--to read the manual--and rather inclined to plunge

in and learn through participation and experimentation.

While this type of learning is far different from the sequential, pyramid approach of the traditional university curriculum, it may be far more effective for this generation, particularly when provided through a media-rich environment.

Hence, it could well be that faculty members of the twentieth-first century

university will be asked to set aside their roles as teachers and instead be become designers of learning experiences, processes, and environments.

Further, tomorrow's faculty may have to discard the present style of solitary learning experiences, in which students tend to learn primarily on their own through reading, writing, and problem solving. Instead they may be asked to develop collective learning experiences in which students work together and learn together with the faculty member becoming more of a consultant or a coach than a teacher.

One can easily identify other similarly profound changes occurring in the other roles of the university.

The process of creating new knowledge--of research and scholarship --is also evolving rapidly away from the solitary scholar to teams of scholars, perhaps spread over a number of disciplines.

Indeed, is the concept of the disciplinary specialist really necessary

--or even relevant--in a future in which the most interesting and significant problems will require "big think" rather than "small think"?

Who needs such specialists when intelligent software agents ("spiders")

will soon be available to roam far and wide through robust networks

containing the knowledge of the world, instantly and effortlessly extracting whatever a person wishes to know?

So, too, there is increasing pressure to draw research topics more directly from worldly experience rather than predominantly

from the curiosity of scholars.

Even the nature of knowledge creation is shifting somewhat away from the analysis of what has been to the creation of what has never been--drawing more on the experience of the artist than upon analytical skills of the scientist.

The preservation of knowledge is one of the most rapidly changing functions

of the university.

The computer--or more precisely, the "digital convergence" of various

media from print to graphics to sound to sensory experiences through

virtual reality--has already moved beyond the printing press in its

impact on knowledge.

Throughout the centuries the intellectual focal point of the university has been its library, its collection of written works preserving the knowledge of civilization.

Yet today, such knowledge exists in many forms--as text, graphics, sound, algorithms, virtual reality simulations--and it exists almost literally in the ether, distributed in digital representations

over worldwide networks, accessible by anyone, and certainly not

the prerogative of the privileged few in academe.

Finally, it is also clear that societal needs will continue to dictate great changes in the applications of knowledge it expects from universities.

Over the past several decades, universities have been asked to play the lead in applying knowledge across a wide array of activities, from providing health care, to protecting the environment, from rebuilding our cities to entertaining the public at large (although it is sometimes hard to understand how intercollegiate athletics represents knowledge application).

This abstract definition of the roles of the university have existed throughout the long history of the university and will certainly continue to exist as long as these remarkable social institutions survive.

But the particular realization of the fundamental roles of knowledge creation,

preservation, integration, transmission, and application will continue to change in profound ways, as they have so often in the past.

And hence, the challenge of change, of transformation, is, in part, a necessity simply to sustain our traditional roles in society.

### The Need to "Reinvent" the University

We face a particular dilemma in developing more revolutionary models for the American university because of a challenges mentioned early in this talk.

The pace and nature of the changes occurring in our world today have become so rapid and so profound that social institutions such as university have great difficult in sensing and understanding the true nature of the changes buffeting them about, much less in responding and adapting adequately.

Indeed, there are some who suggest that our present knowledge-based institutions, such as universities, the media, and federal or industrial laboratories, which have been the traditional structures

for intellectual pursuits, may turn out to be as obsolete and irrelevant to our future as the American corporation of the 1950s.

Hence any process aimed at articulating and analyzing new models for the university must do so with the recognition that these models must themselves adapt to an environment of continual change.

We must take great care not simply to extrapolate the past, but to examine the full range of possibilities for the future.

With this caveat in mind, let us consider several of the more provocative themes suggested by colleagues across the University to illustrate the broad range of possibilities for the university of the twenty-first century.

#### These include

the state-related, but world-supported, university

A university with a strong public character, but supported primarily through resources it must generate itself (e.g., tuition, federal grants, private giving, auxiliary enterprises), not through general purpose appropriations.

## the "world" university

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

the diverse university (or the "uni-di-versity")

A university drawing its intellectual strength and its character from the rich diversity of humankind, providing a model for our society of a pluralistic learning community in which people respect and tolerate diversity even as they live, work, and learn together as a community of scholars.

## the cyberspace university

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

# the creative university

As the tools for creation become more robust (e.g., creating materials atom-by-atom, genetically engineering new life forms, or computer-generating artificial intelligence or virtual reality),

the primary activities of the university will shift from a focus on analytical disciplines and professions to those stressing creative activities (i.e., "turning dreams into reality").

### the divisionless university

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

## the university college

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

the university as capstone of a lifelong sequence of education

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

## Even further questions...

Will a "university of the 21st century" be localized in space and time,

or will it be a "metastructure," involving people throughout their lives

wherever they may be on this planet--or beyond?

Is the concept of the specialist really necessary--or even relevant

--in a future in which the most interesting and significant problems

will require "big think," rather than "small think?" Will intelligent

software agents roam far and wide through robust networks containing

the knowledge of the world and instantly and effortlessly extract

whatever a person wishes to know?

Will lifestyles in the academy (and elsewhere) become increasingly nomadic,

with people living and traveling where they wish, taking their work

and their social relationships with them?

In the spirit of these questions, perhaps we should pay far more attention

to evolving new structures more appropriate for the evolving

information technology. One example would be the collaboratory,

envisioned as an advanced, distributed infrastructure which would use

multimedia information technology to relax the constraints on distance,

time, and even reality.

One approach: The New University

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

Note: universities have never invested much in CR&D

...industry: 3% of sales

...federal target: 3% of GDP

...UM: 0.1% of GF???

An Example: The Michigan Mandate

Throughout our long history, perhaps the most distinguishing characteristic of the University has been our commitment, as President James Angell noted in 1879, to provide "an uncommon education for the common man". This aspiration contrasted sharply with the goals of the nation's earliest colleges which traditionally served only the elite.

The journey from this early ambition to real diversity at Michigan, however, often required intense struggle. Our current successes did not come quickly, easily, or without detours along the way. Our slow but continuous advancement has come from the efforts of thousands of courageous individuals and groups who followed a vision of equality in the face of great opposition.

Yet despite these efforts, it had become obvious by the end of the 1980s that the University had made inadequate progress in its goal to reflect the rich diversity of our nation and our world among its faculty, students and staff. Simply providing access to our institutions was not sufficient to provide full opportunity for those groups which continued to suffer from social, cultural, and economic discrimination in our society.

We knew we had to do more. We also knew that the University would have to change dramatically if it were to remain faithful to its centuryold commitment of making education available to all people.

Seven years ago the U-M launched a strategic initiative we named the Michigan Mandate, designed to change the institution in profound ways to better enable it to serve a changing nation and a changing world. The Michigan Mandate reflects our commitment to make the University of Michigan a national and world academic leader in the racial and ethnic diversity of our faculty, students and staff. It is a plan to link academic excellence and social diversity.

The Michigan Mandate has become a model nationwide for institutions of higher education who are working to increase diversity on their campuses. Let me give you some highlights of the impact of this important effort:

- 1. Today, in every degree program, at every level, for every minority ethnic group, we currently enjoy the highest enrollments in our history.
- 2. Currently we enroll 7,927 students of color, over 24% of our student body (and 27% of this year's freshman class)--an increase of over 60% over the past seven years.

- 3. African American enrollments have risen also risen over 60% to 2,715, bringing their enrollment to 8.5% of our student body. So too, enrollments of Latino students increased to 1,533 (4.7%); and Native American at 258 (1%).
- 4. Our graduation rates for African American students have risen to 70%, the highest for any public university in the nation--indeed, higher than the graduation rates for white students at most public universities.
- 5. Since the beginning of the Michigan Mandate we have added over 100 new African American faculty, roughly doubling their number. And again, their quality is evidenced by the fact that they are achieving tenure at a rate of over 85%.
- 6. More generally, the representation of faculty of color has now rised to 13%.
- 7. Since the University of Michigan ranks among as the leading source of doctorates in the nation, it plays a key role in producing the next generation of faculty for American universities. Hence the importance of our commitment to dramatically expand the number of graduate fellowships we provided for underrepresented minorities, doubling these to over 600, the largest commitment of any university in America.
- 8. So, too, many of our professional schools have become national leaders in their diversity, including our schools of Business, Law, Medicine, and Engineering.

A year ago we launched the Michigan Agenda for Women, aimed at making the University a national leader in overcoming gender discrimination and providing full opportunities for women students, faculty, and staff in all aspects of the University. Although this major initiative is still in its early stages, thus far we have:

- 1. Allocated resources to establish a number of new faculty lines for senior women faculty.
- 2. Overhauled our policies with respect to dependent care, family leave, and flexibility in the workplace.
- 3. Launched a major new task force aimed at improving campus safety and eliminating violence against women.
- 4. Made a series of appointments of women in key leadership positions, including deans and executive officers.

5. And next year Michigan will become the first major university in America to commit sufficient resources to achieve true gender equity in intercollegiate athletics, providing the same number of varsity opportunities for women as we do for men (50% - 50%).

We have moved ahead in some other areas that deserve mention:

- 1. Our Regents have expanded their nondiscrimination policies to prohibit discrimination based on sexual orientation, and last year we extended staff benefits and housing opportunities to same-sex couples.
- 2. We are moving rapidly to achieve greater international diversity among our people and our programs. For example, within the past two years we have opened major new instructional centers in Hong Kong, Seoul, and Paris, and we expect to open a similar program in London this fall.

People ask why we have made this commitment to change, why diversity is the cornerstone of our efforts to achieve national excellence and leadership during the 1990s.

The most compelling reason is that it is the morally right thing to do. Plurality, equal opportunity and freedom from discrimination are the foundations upon which the University--and indeed, our nationare built.

#### But there are other reasons:

- n America of the 21st century will be a nation without a dominant ethnic majority. It will be truly pluralistic. It is clear that our academic institauitons must change rapidly and profoundly to serve this increasingly diverse society.
- n There is another reason why diversity is essential. Unless we draw upon a vast diversity of people and ideas, we cannot hope to generate the intellectual and social vitality we need to respond to a world characterized by great change. Only with a multiplicity of approaches, opinions and ways of seeing can we hope to solve the problems we face.

Hence at Michigan we believe--indeed, we are absolutely convinced-that diversity and excellence are not only mutually compatible but mutually reinforcing objectives. We draw great strength from our extraordinary pluralism

## The Process of Change

So how does an institution as large, complex, and tradition-bound as the modern research university go about transforming itself.

Historically we have accomplished change using a variety of mechanisms:

- i) "buying" change with additional resources;
- ii) laboriously building the consensus necessary for grassroots support

of change;

- iii) changing key people; iv) finesse;
- iv) finesse...or by stealth of night;
- vi) The Nike Approach: "Just do it!,"
  that is, top-down decisions followed by rapid execution
  (following the old adage that "it is better to seek forgiveness
  than to ask permission").

For the type of institutional transformation necessary to move toward the major paradigm shifts that will likely characterize higher education in the years ahead, we will need a more strategic approach capable of staying the course until the desired changes have occurred.

Indeed, many institutions have already embarked on major transformation

agendas similar to those characterizing the private sector.

Some even use similar language as they refer to their efforts to "transform," "restructure," or even "re-invent" their institutions. But, of course, herein lies one of the great challenges to universities, since our various missions and our diverse array of constituencies give us a complexity far beyond that encountered in business or government.

Note: UM Hospitals

...UM has won state's Baldrige prize for TQM efforts

As a result, the process of institutional transformation is necessarily more complex.

Experience demonstrates that the process of transforming an organization is not only possible but also understandable and even predictable, to a degree.

The revolutionary process starts with an analysis of the external environment and the recognition that radical change is the organization's best response to the challenges it faces.

The early stages are sometimes turbulent, marked by conflict, denial, and resistance. But gradually, leaders and members of the organization begin to develop a shared vision of what their

institution should become and to turn their attention to the transformation process.

In the final stages, grass-roots incentives and disincentives are put into place to create the market forces to drive institutional

change; and methods are developed to measure the success of the

transformation process. Ideally, this process never ends.

Through the experience of organizations in both the private and public sector, several features of transformation processes should be recognized

at the outset:

i) First, it is critical to define the real challenges of the transformation

process properly. The challenge is usually not financial or organizational. Rather it is the degree of cultural change required.

We must transform a set of rigid habits of thought and arrangements that are currently incapable of responding to change

either rapidly or radically enough.

ii) It is important to achieve true faculty participation in the design and

implementation of the transformation process, in part since the transformation of the faculty culture is the biggest challenge of all. But here the faculty participation must involve its true intellectual

leadership rather than the political leadership more common to formal faculty governance.

iii) It has been found that the use of an external group is not only very

helpful but probably necessary to provide credibility to the process

and assist in putting controversial issues on the table (e.g., tenure

reform).

iv) Unfortunately, no universities--and few organizations in the private

sector--have been able to achieve major change through the motivation of opportunity and excitement alone. Rather it has taken a crisis to get folks to take the transformation effort seriously--and sometimes even this is not sufficient.

v) The president must play a critical role both as a leader and as an educator in designing, implementing, and selling the transformation process, particularly with the faculty.

The necessary transformations will go far beyond simply restructuring finances to face the brave new world of limited resources.

Rather, they will encompass every aspect of our institutions, including:

the mission of the university

financial restructuring

organization and governance

general characteristics of the university

intellectual transformation

relations with external constituencies

cultural change

#### Concern

The Michigan entreprenurial culture,

at least with the present set of rules and constraints,

has led to an institution with the following problems:

- ...it has diluted its "core businesses" with lots of entreprenurial efforts
- ...it has become so complex that few even know what it is
- ...the difficulty in allowing out-moded and obsolete activities to disappear has put us very much at risk

In a sense, we have become sufficiently encumbered with processes, policies, procedures, practices of the past that our very best people, our most exceptional and creative people no longer determine the direction of the University.

- ...funding limitations
- ...resource allocation (incremental budgeting which preserves the past)
- ...personel policies
- ...disciplinary dominance
- ...consensus gridlock

JJD approach is, in reality, natural evolution

- ...with constraints to preserve fundamental values and mission
- ...but freeing most creative people to drive the institution

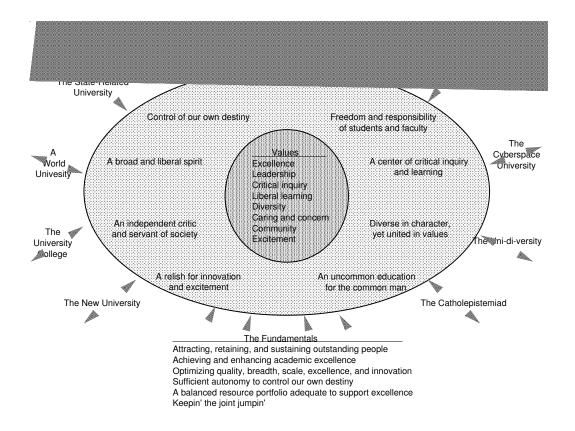
Natural Evolution



That is, to attract, retain, and nurture extraordinary people and let them drive the University.

This is why Vision 2017 is well-defined in the center, and blurry on the edges... suggesting that the new paradigms will be created by our very best people...

Vision 2017



The basic approach is to

- i) Attract and retain exceptional people of true creativity
- ii) To remove constraints on creativity and adaptability, to create a fault-tolerant system
- iii) But to constrain evolution to protect our fundamental missions, character, and values.

## **Concluding Remarks**

There is an increasing sense among leaders of American higher education

and on the part of our various constituencies that the 1990s will represent a period of significant change on the part of our universities if

we are to respond to the challenges, opportunities, and responsibilities

before us.

A key element will be efforts to provide universities with the capacity to transform themselves into entirely new paradigms that are better able

to serve a rapidly changing society and a profoundly changed world.

We must seek to remove the constraints that prevent our institutions from responding to the needs of a rapidly changing society, to remove

unnecessary processes and administrative structures, to question existing

premises and arrangements, and to challenge, excite, and embolden the

members of our university communities to embark on this great adventure.

Our challenge, as an institution, and as a faculty, is to work together to provide an environment in which such change is regarded not as threatening but rather as an exhilarating opportunity to engage in the primary activity of a university, learning, in all its many forms, to better serve our world.

The capacity for intellectual change and renewal has become increasingly

important to us as individuals and to our institutions.

In summary, our objective for the next several years is to provide our universities with the capacity to transform themselves into institutions more capable of serving our states, our nation, and the world.

## **Concluding Remarks**

In a very real sense, the challenge I have suggested of inventing the University of the 21st Century is a challenge I am putting before you...

Since it is your generation that will be taking leadership as we enter the next century.

This is a special challenge to you, since it is your generation that will be taking leadership as we enter the next century.

We are trying to lay the groundwork today for that not-so-distant day.

There is no doubt that we will demand a great

deal of our students and faculty.

We know you are committed to excellence,

- in scholarship, in instruction, in service...
- You have arrived at Michigan at a time of great opportunity, responsibility, and challenge for our institution.
- But there is one more word that I must add to characterize the years ahead... and that world is excitement.
- Michigan is going to be a very exciting place in the decade ahead...
  - We will be able to provide the resources, opportunities, the incentives for the achievement of excellence.
- Indeed, I believe that Michigan is the ideal place for building a strong academic career.
- This is also a place where faculty can afford the risks intellectually.
- Derek Bok pointed this out to me recently that our size and comprehensiveness give us an unusual advantage.
- For whatever reason, I believe we are increasingly a place where faculty can take the chances, exercise vision, get out on a limb...which is as it must be in any great university.
- I don't know how many of you have ever read Thomas Kuhn's book on the nature of scientific revolution, but Kuhn points out that most scholarship is really quite traditional... it is really not designed to produce major novelties.
- Progress is not gradual, but rather occurs through revolution...
  through dramatic changes from one way of thinking...
  from the old "paradigm" as Kuhn puts it, to the new "paradigm"
- As Kuhn puts it, those scholars who achieve the fundamental inventions of a new pardigm have been either very young or very new to the field whose paradigm they change. These are the individuals who, being little committed by prior practice to the

traditional rules of normal scholarship, are particularly likely to see that those rules no longer define a playable game and to conceive another set that can replace them.

In a sense, try something new before you fall into the same ruts that have trapped the rest of us.

I look forward to meeting and working each each of you in the years to come.

Welcome to the Michigan family!

# Once again, welcome to Michigan...

...and welcome as the newest members of our family of the maize and blue.

Anne and I look forward to meeting you...

...and working with you in the years to come.