

Navigating the American University
through the Stormy Seas of a Changing World

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FWC Fireside Chat

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Trailblazers, Pioneers, and Settlers

This past summer I had the opportunity to co-chair a four-day workshop in Switzerland concerning the future of the university. In attendance were roughly two dozen leaders of the world's leading universities from both North America and Europe. Midway through our workshop, the Supreme Court handed down its decision on the Michigan affirmative action cases, an event of rather considerable interest both to me (as a named defendant) and to the American university presidents (and particularly Nils Hasselmo of AAU and David Ward of ACE). I'll return to comment more on this decision in a moment. But first back to the university futures workshop.

I thought it might be interesting if I drew on my Swiss experience, along some perspectives shaped by several national study groups I have recently chaired, to speculate a bit about the trends that will likely reshape, redirect, reinvent, and possibly even replace the university as we know it in the years ahead.

Of course when ever any group of university presidents get together, they usually begin with all the usual topics: money, students, politics, and, for an unfortunate few, intercollegiate athletics.

But I'm going to take a somewhat different approach, by climbing up to the 100,000 foot level, to look perhaps a decade or more ahead, with a view encompassing not simply higher education in the United States but throughout our increasingly interconnected world.

The Themes of Change in Higher Education

1. The Current Budget Crunch

Of course, foremost on the minds of most university leaders these days are the devastating cuts in appropriations as the states struggle to cope with crushing budget deficits or the erosion of private support from gifts and endowment income associated with a weak economy. Of course, the optimist might suggest that this is just part of the ebb and flow of economic cycles. In bad times, state governments and donors cut support, hoping to restore it once again

in good times. But this time it may be different. As one state budget officer noted: "College leaders are fooling themselves if they think the end of this recession will be like all the others. What we're seeing is a systematic, careless withdrawal of concern and support for advanced education in this country at exactly the wrong time."

Why the doom and gloom? In Europe and Asia, the erosion of public support is seen as a consequence of massification of higher education, in which tax revenues once supporting only university education for the elite are now being stretched beyond capacity to fund higher education for an appreciable fraction of the population.

In the United States, I would characterize our current dilemma somewhat differently as a transition from "guns" to "pills", as a nation, which once viewed education as critical to national security, seems today more concerned with sustaining the social benefits (and tax policies) demanded by an aging baby boomer population (and to hell with the kids). The priorities of those of us in this impacted wisdom group are clearly health care, prisons, homeland security, and reduced tax burdens for the near term rather than in the education of the next generation and the future. This situation is unlikely to change until most of baby boomers in this room die off and allow our nation to re-establish an more appropriate balance between consuming for our present desires and investing for our

Yet there is a certain irony here, since society's dependence upon higher education in general and the research university in particular has never been stronger. Today we are evolving rapidly into a post-industrial, knowledge-based society, a shift in culture and technology as profound as the shift that took place a century ago when our agrarian societies evolved into industrial nations.

A radically new system for creating wealth has evolved that depends upon the creation and application of new knowledge. In a very real sense, we are entering a new age, an age of knowledge, in which the key strategic resource necessary for prosperity has become knowledge itself—educated people and their ideas (Bloch, 1988). Unlike natural resources, such as iron and oil, that have driven earlier economic transformations, knowledge is inexhaustible. The more it is used, the more it multiplies and expands.

But knowledge can be created, absorbed, and applied only by the educated mind. Hence schools, in general, and universities in particular, will play increasingly important roles as our societies enter this new age.

And it is this reality of the global, knowledge-driven civilization of the 21st Century that is stimulating the powerful forces that will reshape the nature of our universities.

2. The Changing Higher Education Needs of Society

Today, a college degree has become a necessity for most careers, and graduate education desirable for an increasing number. A growing population will necessitate some growth in higher education to accommodate the projected increases in the number of traditional college age students, roughly 15% across the U.S. in the next decade, and considerably more in states such as California. But even more growth and adaptation will be needed to respond to the educational needs of adults as they seek to adapt to the needs of the high performance workplace. In fact, it is estimated that by 2010 over 50% of college students will be working adults over the age of 25!

Both young, digital-media savvy students and adult learners will likely demand a major shift in educational methods, away from passive classroom courses packaged into well-defined degree programs, and toward interactive, collaborative learning experiences, provided when and where the student needs the knowledge and skills.

The increased blurring of the various stages of learning throughout one's lifetime—K-12, undergraduate, graduate, professional, job training, career shifting, lifelong enrichment—will require a far greater coordination and perhaps even a merger of various elements of our national educational infrastructure. We are shifting from “just-in-case” education, based on degree-based programs early in one's life, to “just-in-time” education, where knowledge and skills are obtained during a career, to “just-for-you” educational services, customized to the needs of the student. The student is evolving into an active learner and eventually a demanding consumer of educational services.

This increasingly utilitarian view of higher education is reflected in public policy. Ask any governor about state priorities these days and you are likely to hear concerns expressed about education and workforce training. The National Governors Association notes that “The driving force behind the 21st Century economy is knowledge, and developing human capital is the best way to ensure prosperity.”

Education is becoming a powerful political force. Just as the *space race* of the 1960s stimulated major investments in research and education, there are early signs that the *skills race* of the 21st Century may soon be recognized as the dominant domestic policy issue facing our nation. But there is an important difference here. The space race galvanized public concern and concentrated national attention on educating “the best and brightest,” the elite of our society. The skills race of the 21st Century will value instead the skills and knowledge of our entire workforce as a key to economic prosperity, national security, and social well-being.

3. Diversity

The increasing diversity of the American population with respect to race, ethnicity, gender and nationality is both one of our greatest strengths and most serious challenges as a nation. A diverse population gives us great vitality. However the challenge of increasing diversity is complicated by social and economic factors. Far from evolving toward one America, our society continues to be hindered by the segregation and non-assimilation of minority cultures. Our society is challenging in both the courts and through referendum long-accepted programs as affirmative action and equal opportunity aimed at expanding access to higher education to underrepresented communities and diversifying our campuses

Here, as many of you know, I speak with some personal involvement since I was a named defendant in two recent cases before the United States Supreme Court involving the University of Michigan's admissions. (I'm the “*et. al.*” in the cases.). Although the Court split on these cases, the important feature of both opinions was the establishment that diversity in higher education is a

compelling national interest, and that racial factors may play a role in efforts to achieve this objective.

At Michigan, we felt it was important that we “carry the water” for the rest of higher education to re-establish this important principle. Throughout our history, my university has been committed to providing, as one of our early presidents put it, “an uncommon education for the common man”, being one of the first American universities to extend educational opportunities to the working class, to women, to racial and ethnic minorities, and to students from every state and nation.. We are absolutely convinced that there is a very strong linkage between academic excellence and campus diversity. Indeed, in an increasingly diverse world, it is hard to imagine how the contemporary university can provide both a high quality and relevant education, not to mention contribute original scholarship and research, without reflecting such diversity among its students, faculty, and staff.

As a leader of society at large and a reflection of that society, the university has a unique responsibility to develop effective models of multicultural, pluralistic communities for our nation and our world. We must strive to achieve new levels of understanding, tolerance, and mutual fulfillment for peoples of diverse racial and cultural backgrounds both on our campuses and beyond. We need to shift our attention from simply access to educational opportunity to success in achieving educational objectives. The recent Supreme Court decisions have now not only reaffirmed the importance of this fundamental commitment, but the Court has also clarified the path we may take to achieve diversity in higher education. But we will still have many battles yet to fight before this war is won.

4. Technology

Several years ago the presidents of our National Academies launched a project to understand better the implications of information technology for the future of the research university, which I was asked to chair. Let me mention three key conclusions from first phase of this study:

Point 1: The extraordinary evolutionary pace of information technology will not only continue for the foreseeable future, but it could well accelerate on a superexponential slope.

Digital technology is characterized by an exponential pace of evolution in which characteristics such as computing speed, memory, and network transmission speeds for a given price increase by a factor of 100 to 1000 every decade. To illustrate with an extreme example, if information technology continues to evolve at its present rate, by the year 2020, the thousand-dollar notebook computer will have a data processing speed and memory capacity roughly comparable to the human brain.¹ Except it will be so tiny as to be almost invisible, and it will communicate with billions of other computers through wireless technology.

For planning purposes, we can assume that by the end of the decade we will have available infinite bandwidth and infinite processing power (at least compared to current capabilities). We will denominate the number of computer servers in the billions, digital sensors in the tens of billions, and software agents in the trillions. The number of people linked together by digital technology will grow from millions to billions. We will evolve from “e-commerce” and “e-government” and “e-learning” to “e-everything”, since digital devices will increasingly become our primary interfaces not only with our environment but with other people, groups, and social institutions.

Point 2: The impact of information technology on the university will likely be *profound, rapid, and discontinuous*—just as it has been and will continue to be for the economy, our society, and our social institutions (e.g., corporations, governments, and learning institutions). It is a *disruptive* technology (in the sense of Clayton Christenson).

Information and communications technology will affect the activities of the university (teaching, research, outreach), its organization (academic structure, faculty culture, financing and management), and the broader higher education enterprise. However, at least for the near term, meaning a decade or

less, we believe the research university will continue to exist in much its present form, although meeting the challenge of emerging competitors in the marketplace will demand significant changes in how we teach, how we conduct scholarship, and how our institutions are financed.

Universities must anticipate these forces, develop appropriate strategies, and make adequate investments if they are to prosper during this period. Procrastination and inaction are the most dangerous courses for universities during a time of rapid technological change.

Point 3: It is our belief that universities should begin the development of their strategies for technology-driven change with a firm understanding of those key values, missions, and roles that should be protected and preserved during a time of transformation.

6. Markets

The growing and changing nature of higher education needs will trigger strong economic forces. The weakening influence of traditional regulations and the emergence of new competitive forces, driven by changing societal needs, economic realities, and technology, are likely to drive a massive restructuring of the higher education enterprise. From our experience with other restructured sectors of the economy such as health care, transportation, communications, and energy, we could expect to see a significant reorganization of higher education, complete with the mergers, acquisitions, new competitors, and new products and services that have characterized other economic transformations. More generally, we may well be seeing the early stages of the appearance of a global knowledge and learning industry, in which the activities of traditional academic institutions converge with other knowledge-intensive organizations such as telecommunications, entertainment, and information service companies.²

This situation is likely to continue for at least several decades, at least until a new generation restores a more appropriate balance between the consumption of an aging population and meeting the educational needs of the young. The market forces currently driving the evolution of higher education in the United

States are global in extent, and they will sweep aside institutions dependent only upon public support. But there are warning signs.

Warning Sign 1: Darwinian Competition: Evidence of this increasingly market driven character of higher education is provided by the competition among universities. The arms race is escalating, as institutions compete ever more aggressively for better students, better faculty, government grants, private gifts, prestige, winning athletic programs, and commercial market dominance. This is aggravated by vast wealth accumulated by several of the elite private universities that allows them to buy “the best and brightest” students through generous financial aid programs (including merit-based programs) and raid outstanding faculty from less well-endowed institutions. The growing gap between faculty salaries characterizing private and public research universities have created a Darwinian ecosystem in which wealthy elite universities have become predators feeding on the faculties of their less well-endowed prey, causing immense damage to the quality of the latter’s programs by luring away their top faculty with offers they are unable to match.

Warning Sign 2: Commercialization of the Academy: Yet another warning sign concerns the efforts of universities and faculty members to capture and exploit the soaring commercial value of the intellectual property created by research and instructional activities. This has infected the research university with the profit objectives of a business, as both institutions and individual faculty members attempt to profit from the commercial value of the products of their research and instructional activities. Universities have adopted aggressive commercialization policies and invested heavily in technology transfer offices to encourage the development and ownership of intellectual property rather than its traditional open sharing with the broader scholarly community. They have hired teams of lawyers to defend their ownership of the intellectual property derived from their research and instruction. On occasions some institutions and faculty members have set aside the most fundamental values of the university, such as openness, academic freedom, and a willingness to challenge the status quo, in order to accommodate this growing commercial role of the research university.³

Warning Sign 3: From Public Good to Private Benefit: There is a deeper issue here. The American university has been seen as an important social institution, created by, supported by, and accountable to society at large. Yet, today, even as the needs of our society for postsecondary education intensifies, we also find an erosion in the perception of education as a public good deserving of strong societal support.⁴ State and federal programs have shifted from investment in the higher education enterprise (appropriations to institutions or students) to investment in the marketplace for higher education services (tax benefits to students and parents). Whether a deliberate or involuntary response to the tightening constraints and changing priorities for public funds, the new message is that education has become a private good that should be paid for by the individuals who benefit most directly, the students.

This shift from the perception of higher education as a public good to an individual benefit has another implication. To the degree that higher education was a public good, benefiting all (through sustaining democratic values, providing public services), one could justify its support through taxation of the entire population. But viewed as an individual benefit, public higher education is, in fact, a highly regressive social construct since, in essence, the poor subsidize the education of the rich, largely at the expense of their own opportunities.

Let me illustrate this with an example from my own university. For some time our state legislature has adopted a policy (at least in rhetoric) that state tax dollars should only be used to support Michigan residents. For that reason, the University of Michigan sets the tuition levels for nonresidents at essentially private university levels, \$25,000 for 2003-2004, which also happen to be roughly our estimate of actual instructional costs for undergraduates. For Michigan residents, this tuition is discounted to \$7,000. Our current state appropriation (\$320 million) amounts to about \$12,000 per Michigan student. Hence, you see that even if we were to apply the full appropriation to the subsidy of Michigan residents (ignoring the use of these funds for other state mandated activities such as public service, health care, etc.), this still leaves $\$25,000 - (\$7,000 + \$12,000) = \$6,000$ of the discount from actual costs to be covered from other sources. In reality, this funding gap must be covered from the same discretionary funds

(from private gifts and endowment) we would use for student financial aid programs. The policy implications of this reality become even more apparent when it is noted that the average student family income at Michigan is now in excess of \$100,000. It is clear that, at least for the University of Michigan, maintaining instate tuition levels far below the discount covered by state appropriations is coming at the expense of student financial aid. Put another way, low instate tuitions represent a very substantial subsidy of the costs of a college education for the affluent at the expense of the educational opportunities of those from less fortunate economic circumstances.

But even beyond this, if one views state support as providing essentially the discounted price from the true costs of the college education provided to state residents, one might well question why this should be distributed equally to all, rich and poor. If a fundamental objective of public higher education is access to educational opportunity, then a far more progressive social policy would be to distribute the state subsidy based on need, either through charging tuition prices closer to the true cost of an education and using state funding to provide need-based financial aid, or by setting tuition levels based on the ability to pay, with the consequent discount covered by state support—so-called high-tuition-high-financial-aid policies. The current low-tuition-low-financial aid policy in place in most states (and many nations) amounts to taxing the poor to subsidize the education of the rich.

The implications are that the marketplace coupled with a commitment to provide educational opportunities to all, regardless of economic ability, will increasingly drive many of the best public universities toward high-tuition, high financial aid policies in which state support becomes correctly viewed as a tax-supported discount of the price of education that should be more equitably distributed to those with true need. The leading public universities may increasingly resemble private universities in the way they are financed and managed. They will use their reputation, developed and sustained during earlier times of more generous state support, to attract the resources they need from federal and private sources to replace declining state appropriations. Put another way, many will embrace a strategy to become increasingly privately financed, even as they strive to retain their public character. Not that those public

universities with the political capacity to move to high tuition will suffer, since the marketplace teaches us that high quality is frequently far more competitive than low cost (the Lexus sells better than the Neon!).

One obvious consequence of declining state support is that the several of the leading public universities may increasingly resemble private universities in the way they are financed and managed. They will move toward higher tuition-high financial aid strategies. They will use their reputation, developed and sustained during earlier times of more generous state support, to attract the resources they need from federal and private sources to replace declining state appropriations. Put another way, many will embrace a strategy to become increasingly privately financed, even as they strive to retain their public character. Not that those public universities with the political capacity to move to high tuition will suffer, since the marketplace teaches us that high quality is frequently far more competitive than low cost (the Lexus sells better than the Neon!).

The first wave of this "privatization" of support for public higher education started more than three decades ago, when public institutions began charging tuition as legislators cut back appropriations from tax dollars. It intensified with major fund-raising efforts and financial efforts such as spinning off operations such as medical centers and law and business schools.

Ironically—and perhaps not surprising in view of the nature of politics—even as public universities became less dependent on state support, state governments attempted to tighten the reins of state control with even more regulations and bureaucracy in the name of "public accountability". Little wonder that in many states, public universities are now moving into a new phase of privatization by seeking to free themselves from state control since taxpayers now pay for such a small share of their overall operations. Little wonder that public university leaders are increasingly reluctant to cede control of their activities to state governments. Many institutions are even bargaining for more autonomy from state control as an alternative to growth in state support, arguing that if granted more control over their own destiny, they can better protect their capacity to serve the public.

Let me illustrate the point with a case study: Throughout much of the twentieth century the University of Michigan benefited from generous state support when a booming automobile industry made the Michigan economy unusually prosperous and a time when the University of Michigan was the only major university in the state. However by the 1970s, the energy crisis and foreign competition weakened Michigan's industrial economy. Furthermore, regional needs, ambitious leadership, and sympathetic political forces allowed a number of other public colleges in Michigan to grow into comprehensive universities, thereby competing directly with the University of Michigan for limited state appropriations.

During the 1950s and 1960s, almost 70 percent of the University's operating budget was provided through state appropriations from general tax revenues. However, over the past three decades, this has dropped to less than 10 percent of the University's total operating budget in the 1990s and less than 20 percent of its General and Education budget. During this period the University of Michigan evolved from "state-supported" to a "state-assisted" to a "state-related" to, today, what might be only characterized as a "state-located" university. Yet even this last identifier is questionable, since the University has campuses around the world, from Hong Kong to Seoul to Sao Paulo to Paris. In fact, the University has launched major new cyberspace "virtual" universities that have released it entirely from the constraints of geographical location. One of my colleagues suggested that University of Michigan today remains only a "state-molested" university, referring to the abuse it sometimes receives from opportunistic state politicians.

Perhaps a better way to phrase this is to observe that the University of Michigan has become, in effect, a privately-financed public university, supported by a broad array of constituencies at the national—indeed, international—level, albeit with a strong mission focused on state needs. Just as a private university, it must earn the majority of its support in the competitive marketplace (i.e., via tuition, research grants, and gifts). It allocates and manages its resources much as private universities. Yet it still retains a public character, committed to serving the people whose ancestors created it two centuries earlier.

Warning Sign #4: The Loss of Public Purpose: In this process of responding to the market place by privatizing public higher education we could lose something of immense importance: the public purpose of the university. As Bob Zemsky stresses, markets are inexorable, and it is both fruitless and dangerous to pretend they are not. Yet, if they are allowed to dominate and reshape the higher education enterprise without constrain, some of the most important values and traditions of the university will likely fall by the wayside. Will higher education retain its special role and responsibilities, its privileged position in our society? Will it continue to prepare young students for roles as responsible citizens? Will it provide social mobility through access to education? Will it challenge our society in the pursuit of truth and openness? Or will it become, both in perception and reality, just another interest group driven along by market forces? As we assess these market-driven emerging learning structures, we must bear in mind the importance of preserving the ability of the university to serve a broader public purpose.

Institutional Saga

Successful university presidents must be well-informed (acclimated or indoctrinated) to the history, traditions, and cultures of the institution they are leading. Academic institutions respond very differently to changes in leadership than, for example, the way that Washington adapts to a new administration or a corporation is reshaped to accommodate a new CEO. Universities are based on long standing traditions and continuity, evolving over many generations (in some cases, even centuries) with very particular sets of values, traditions, and practices.

Burton R. Clark, a noted scholar of higher education, coined the term “institutional saga” to refer to these long-standing characteristics. Clark’s view is that “An organizational legend (or saga), located between ideology and religion, partakes of an appealing logic on one hand and sentiments similar to the spiritual on the other. Universities develop over time such an intentionality about institutional life, a saga, which then results in unifying the institution and shaping its purpose.” As Clark notes, “An institutional saga may be found in

many forms, through mottoes, traditions, and ethos. It might consist of long-standing practices or unique roles played by an institution, or even in the images held in the minds (and hearts) of students, faculty, and alumni.”

For example, the saga of my own alma mater, Yale University, was shaped over the centuries by old-boy traditions such as secret societies (e.g., Skull and Bones), literature (*Dink Stover at Yale, God and Man at Yale*), and national leadership (Theodore Roosevelt, George H. Bush, George W. Bush,...and, of course, Gerald R. Ford, although the latter was first a Michigan man)⁵. Harvard’s saga is perhaps best captured by the response of a former Harvard president (Lowell), whom when asked what it takes to build a great institution like Harvard, responded simply: “300 years!”. Notre Dame draws its saga from the legends of the gridiron–Knute Rockne, the Four Horsemen, and the subway alumni. Big Ten universities also have their symbols–football weekends, Greek life, campus protests, and the smokestacks of their campus power plants.

Although university presidents can influence the saga of their university, they also must recognize that these characteristics provide the framework for their role, capable both of enhancing and constraining their actions. Successful presidents are attentive to an institution’s saga, respecting its power and influence over the long term, and carefully aligning their own tenure of leadership with its elements. Presidents either ignorant or dismissive of the institutional saga of their university have little impact and rarely last more than a few short years.

To illustrate, it is instructive to begin by leafing back through the pages of Michigan’s history to suggest an institutional saga for the university.

The Michigan Saga

Images of Michigan

Football?

Hill Auditorium?

Student activism?

UM Hospitals?

UM Research

UM on the Moon

History

Among the possible candidates from Michigan's history are characteristics such as the following:

12. The *Catholipistimead of Michigania* (the capstone of public education)
13. The flagship of public universities or "mother of state universities"
14. A commitment to providing "an uncommon education for the common man"
15. The "broad and liberal spirit" of its students and faculty
16. The university's control of its own destiny, due to its constitutional autonomy providing political independence as a state university, and an unusually balanced portfolio of assets providing independence from the usual constraints as a public university
17. An institution diverse in character, yet unified in values
18. A relish for innovation and excitement
19. A center of critical inquiry and learning
20. A tradition of student and faculty activism
21. A heritage of leadership
22. "The leaders and best" (to borrow a phrase from Michigan's fight song, *The Victors*).

There is one more element of the Michigan saga that seems particularly appropriate during these times of challenge and change in higher education. Shortly after being appointed as provost of the university, the president, Harold Shapiro, help me arrange several visits to the campuses of peer institutions to learn more about their practices and perceptions. During a visit to Harvard, I had the opportunity to spend some time with its president, Derek Bok. As it happened, Bok knew a good deal about Michigan since, in a sense, Michigan and Harvard provided a key communication channel between public and private higher education.

Bok acknowledged that Harvard's vast wealth allowed it to focus investments in particular academic areas far beyond anything that Michigan—or indeed almost any other university in the nation—could achieve. But then he added that Michigan had one asset that Harvard would never be able to match: *its unique combination of quality, breadth, and capacity*. He suggested that this combination enabled Michigan to take risks far beyond anything that could be matched by a private university. Because of its relatively modest size, Harvard tended to take a rather conservative approach to academic programs and appointments, since a mistake could seriously damage an academic unit. Michigan's vast size and breath allowed it to experiment and innovate on a scale far beyond that considered by most institutions, as evidenced by our long history of leadership in higher education. It could easily recover from failures it encountered on its journeys along high-risk paths.

Bok suggested that this ability to take risks, to experiment and innovate, to explore various new directions in teaching, research, and service, might be Michigan's unique role in American higher education. He persuaded me that during a time of great change in society, Michigan's most important saga might be that of a pathfinder, building on its tradition of leadership, and relying on its unusual combination of quality, capacity, and breadth to re-invent the university, again and again, for new times, new worlds, and new needs.

This perception of Michigan as a trailblazer appears again and again in its history, exploring possible paths in new territory, and blazing a trail for others to follow. Actually, Michigan has been both a trailblazer, exploring possible paths in a new territory, and a pioneer, building the roads that other can follow.⁶ Whether in academic innovation (e.g., the quantitative social sciences), social responsiveness (its early admission of women, minorities, and international students), or its willingness to challenge the status quo (e.g., the Teach-Ins, Earth Day, and the Michigan Mandate), Michigan's history demonstrates this trailblazing character time and time again. Recently, when Michigan won the 2003 Supreme Court case concerning the use of race in college admissions, the general reaction of other colleges and universities was "Well, that's what we expect of Michigan. They carry the water for us on these issues." When Michigan, together with IBM and MCI built NSFnet during the 1980s and

expanded it into the Internet, again that was the type of leadership the nation expects from us. When I travel in Europe or Asia, other universities have great interest in what is happening at Michigan, in part because they see it as a possible model for their own future. Certainly they respect—indeed, envy—distinguished private universities such as Harvard and Stanford. But as public institutions, they realize they will never be able to amass the wealth of these elite private institutions. Instead they see Michigan as the model of an innovative university, straddling the characteristics of leading public AND private universities.

Time and time again I get asked questions about “the Michigan Model”—or perhaps better phrased, “the Michigan Mystique”. Now of course people mean many different things by this phrase: our unusually strong and successful commitment to diversity; our hybrid funding model combining the best of both public and private universities; our unusually autonomy from government interference; or perhaps our unusual combination of quality, breadth, and capacity that gives us the capacity to be innovative, to take risks. And, of course, these multiple perspectives all illustrate particular facets of what it means to be a “leader and best”.

The UM saga involves a combination of quality, size, breadth, innovation, and spirit. The university has never aspired to be Harvard or the University of California, although we greatly admire these institutions. Rather we are a unique combination of characteristics, particularly well-suited to exploring and charting the course for higher education as it evolves to serve a changing world.

¹ Ray Kurzweil, *The Age of Spiritual Machines: When Computers Exceed Human Intelligence* (New York: Viking, 1999).

² Marvin W. Peterson and David D. Dill, "Understanding the Competitive Environment of the Postsecondary Knowledge Industry", in Planning and Management for a Changing Environment, edited by Marvin W. Peterson, David D. Dill, and Lisa A. Mets (San Francisco: Jossey-Bass Publishers, 1997) pp. 3-29.

³ Eyal Press and Jennifer Washburn, "The Kept University", *The Atlantic Monthly*, March, 2000, pp. 39-54.

⁴ Robert Zemsky, "Rumbling," *Policy Perspectives*, Pew Higher Education Roundtable, sponsored by the Pew Charitable Trusts (Philadelphia: Institute for Research on Higher Education, April 1997).

⁵ Not to mention a bevy of more recent presidential candidates such as Howard Dean, John Kerry, and Joseph Lieberman

⁶ Here it is useful to distinguish among three frontier analogies to innovation: *trailblazers*, *pioneers*, and *settlers*. *Trailblazers* seek paths through the new territory. Their activities tend to be highly unstructured and frequently individualistic. Their motivation is the challenge of the unknown, risk-taking, and excitement. Their reward is leadership, the glory of being first. In contrast, *pioneers* tend to select the most promising paths discovered by trailblazers and develop them into roads that others can use. While risk is tolerated, the real objective is to balance resources and constraints to achieve effect options for the broader community. *Settlers* can then use these routes to mainstream the innovations so that they serve the entire enterprise, learning from the experience and benefiting from the efforts of trailblazers and pioneers so that risk is minimized and effectiveness is optimized.

While Michigan has a long history of success as a trailblazer and a pioneer, sometimes it has stumbled as a "settler", that is, capitalizing on existing infrastructure and opportunity to expand and fine-tune its activities. Instead, such efforts to optimize the status quo tends to lead to complacency and eventually stagnation at an institution like Michigan.