We are entering a new age, an age of knowledge, in which the crucial strategic resources for prosperity have become educated people and their ideas. Fundamental transformations in the mission and character of today’s colleges and universities are required by our changing world. James Duderstadt, president emeritus of the University of Michigan, believes that few institutions have grappled with the extraordinary implications of the age of knowledge that will be our future. He identifies the system of shared governance in American higher education as the root of the limited responsiveness and weakened leadership thwarting the university’s efforts to control its own destiny.
Forces of Change

Powerful financial, social, and technological forces are driving change in our society and its institutions.

Financial forces effecting change include greater demand for education and research, increasing costs, and an inability thus far to re-engineer institutional cost structures. These conditions are accompanied by a decline in higher education as a priority for public support and increased public resistance to rising prices.

Changing societal needs are reflected in an estimated 30 percent increase in the number of traditional age students over the next decade and the life-long educational needs of high-performance workers. Higher education institutions are making the transition from “just-in-case” to “just-in-time” to “just-for-you” learning, as students have shifted into the roles of learners and consumers.

Rapid advances in information technology will have a profound effect on higher education, particularly as technology reaches the point where it releases education from the constraints of space, time, and reality that prescribe teaching and learning today.

Economic realities, changing societal needs, and rapidly evolving technology are creating powerful market forces in the higher education industry. The traditional monopolies of the university, sustained in part by geography and accreditation, are breaking apart. We are witnessing the early signs of a massive restructuring in the industry.

There are many signs, too, that the current paradigm for conducting, distributing, and financing higher education may be inadequate for meeting growing and changing societal needs, and incapable of responding to the opportunities and challenges of the digital age. The current faculty-centered, monopoly-sustained university model is ill suited to the intensely competitive, technology-driven global marketplace.

Information Technology and the Future of the University

The rapid advancement of information technology is the essential driver of the revolution transforming higher education today. And there is no evidence of slowdown in the pace of IT progress, by any measure or characteristic. Rather, we appear to be on a superexponential technology learning curve that is likely to continue for at least the next several decades. We can assume there will continue to be major technological surprises, comparable in significance to the personal computer in 1980 and the Internet browser in 1994, but at more frequent intervals.

The crucial strategic resources for prosperity have become educated people and their ideas.
The digital generation will demand interactive, collaborative, nonlinear learning experiences. Faculty will be challenged to become designers of such experiences and motivators of active learning, as we make the transition to open learning environments that differ dramatically from traditional institutions.

The content of the university is contained in the minds of people—faculty, staff, and students. It cannot be bottled up; in fact, it can walk out the door. Today, roughly 800,000 faculty serve 15 million students in a $180 billion enterprise. The knowledge industry of the future may be a $300 billion enterprise, with 30 million students served by 200,000 faculty “facilitators,” 50,000 faculty “content providers,” and 1,000 faculty “celebrity stars.”

Clearly, we must begin to think about the implications of accelerating technology learning curves. Critical event horizons are much closer than most realize. Yet, most campus leaders still view IT as a cost, not as an investment with staggering cost benefits. Investment in robust IT represents the stakes for survival in the age of knowledge.

University Leadership During an Era of Change

How do we balance the role of market forces and public purpose in determining the future of higher education in America? Can we control market forces through public policy and public investment so that the most meaningful traditions and values of the university are preserved? Or will the competitive and commercial pressures of the marketplace sweep over our institutions, leaving behind a higher education enterprise characterized by mediocrity?

Issues surrounding institutional transformation present the most difficult decisions facing campus leaders today. Experience suggests that forces from outside the academy usually drive major change in higher education. Earlier examples of change, such as the evolution of the land grant university, the growth of higher education following World War II, and the evolution of the research university all represented responses to powerful external forces and major national policies. While examples of major institutional transformation driven by strategic decisions and plans from within are relatively rare, we should not assume that the university is incapable of controlling its own destiny. Self-driven strategic transformation is possible and necessary to cope with the challenges of our time.

The current practice of shared governance of colleges and universities, however, is cumbersome and awkward at best, and ineffective and indecisive at worst. Shared governance allocates public accountability and stewardship to the governing board, academic matters to the faculty, and the tasks of leading and managing the institution to the administration. Yet all too often each group crosses the boundaries of its expertise, while a number of important issues—such as long-term strategic planning and institutional transformation—fall through the cracks.

But power shared more or less equally among all potential decision makers leads to “gridlock,” a conclusion drawn by the National Commission on the Academic Presidency sponsored by the Association of Governing Boards of Universities and Colleges several years ago. The commission concluded that most university presidents are currently unable to lead their institutions effectively. They operate from one of the most anemic power bases in any of the major institutions in American society, lacking the clear lines of authority they need to act effectively, and forever compelled to discuss, negotiate, and seek consensus. And all too often, when controversy develops, presidents find that their key partner—their governing board—does not back
them up.

Many university presidents—particularly those in the public sector—believe that the greatest barrier to change in their institutions lies in the manner in which their institutions are governed, both from within and from without. Universities have a style of governance more adept at protecting the past than preparing for the future. While collegiality should continue to be valued and honored, the modern university simply must accept a more realistic balance between responsibility and authority for its leadership.

The successful adaptation of universities to the revolutionary challenges they face depends a great deal on their collective ability to learn and continuously improve their decision-making processes. Only a concerted effort to understand the important traditions of the past, the challenges of the present, and the possibilities for the future will enable institutions to thrive during this time of transformation.

**Conclusion**

It seems clear that the university of the 21st century will require new patterns of governance and leadership capable of responding to the changing needs and emerging challenges of our society and its educational institutions.

The most important objective of any broad effort at institutional transformation is not so much to achieve a specific set of goals, but rather to build the capacity, the energy, the excitement, and the commitment to move toward bold visions of the university’s future. The real aims include removing the constraints that prevent the institution from responding to the needs of a rapidly changing society, removing unnecessary processes and administrative structures, and questioning existing premises and arrangements. Finally, perhaps the smoothest path to the new age of knowledge will be built by challenging, exciting, and emboldening the members of the university community to view institutional transformation as a great adventure.

James Duderstadt is president emeritus and university professor of science and engineering at the University of Michigan. He also serves as director of the Millennium Project, a research center in Michigan’s Media Union concerned with the impact of technology on research and teaching. He is the author of several books, including most recently *A University for the 21st Century* (2000), and *Intercollegiate Athletics and the American University* (2000).