

1999 Academic Convocation

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SERVING AND EMPOWERING PEOPLE IN THE NEW MILLENNIUM

The Wall Street Journal published a front page that reflected what it would have published had it been operating on January 1, 1000. Its lead stories included these headlines and items:

"Ambitious Otto III Bids to Expand Realm, Reunite Christendom, But the Teen Ruler Grows More Eccentric and Cruel, Mutilates the 'Antipope'"

The story reported:

The first Holy Roman Emperor--who died in 814--will receive a visit from the current Holy Roman Emperor this spring. Otto, who believes reports of Charlemagne's death have been greatly exaggerated, will open the dead monarch's tomb and exhume his hero. Otto's admirers contend it will be a solemn and memorable occasion, linking the destinies of two great kings.

Another story covering business and finance reported:

Vikings earned substantial profits from Slavic slave trade, as sales to Constantinople increased. The Swedish merchants found that demand has grown for slaves from the Black Sea trading post of Berezanji. The Vikings trekked with furs and tusks from Scandinavia, making stops for commerce along their route before swapping goods for slaves. In Constantinople, the traders exchanged slaves for spices, glass and silver coins.

The story also noted that horseshoe prices rose in Europe because of a shortage of cast-iron supplies.

But the story I want to emphasize from this remarkable edition is headlined: "Its Education, Stupid: Why East Leads West." Dated Kaifeng, China, it reported:

For short-term economic growth, some nations have long relied on plunder. Raiding a nearby country for its riches can provide a quick economic boost back home. But as a long-term strategy, plunder is risky. So it is that the world's most advanced civilizations--the Song dynasty in China, and the Islamic and Byzantine empires--increasingly boast diversified economies that rely on enterprise and ingenuity. Their manufacturers improve production processes to increase efficiency. Their farmers find ways to boost crop yields. Their merchants ply major trade routes with gadgets that guide ships safely to faraway destinations.

The article noted that the backward nations of Western Europe were in a sorry state, stumbling along: "The English, the Franks, the Germans and, to a lesser extent, the Norse seem to be stuck in midmillennium," with their coarse goods not attracting much interest on world markets. It went on to analyze why, as the world entered the second millennium, the gap between the rich and poor nations remained so stark.

The answer had to do with education. The leading powers of that millennium emphasized knowledge and the industrious application of their wisdom. I quote:

Literacy and numeracy are increasingly common in China. The Arabs opened a university in Fez in Morocco in 859. Caliph al-Mamun of Baghdad in 830 founded the House of Wisdom, which has translated Greek, Persian and Sanskrit works into Arabic. Cordoba, home to a library since 912, now has a university opened by the Moors in 968, and Cairo University was started in 972. Similarly, Byzantine emperor Bardas founded a university in Constantinople in 856.

According to the Journal, Islam in particular had spread its knowledge in various ingenious ways; by comparison, Europeans were poorly educated, relying on translations of Arabic texts into Latin to expand their knowledge. The article also reported:

... in a world where economic growth increasingly is tied to technological advances, Western Europeans aren't just slow but at times display ignorance when presented with a new technology that improves how things are done. The abacus long has been used in the Orient and Middle East for mathematical calculations. But it has failed to catch on in Europe. Little has changed it seems, since two centuries ago when an Arabic water clock given as a gift to Charlemagne was neglected.

What will the stories in The Wall Street Journal on January 1, 3000, report? Readers might find such headlines as, "Global Government Wrestles With Resource Problems Caused By Increased Longevity of World Population, To An Average Age of 160 Years"; "Political Rivalries Intensify Between Colonies On Mars And The Moon Seeking Their Independence From Earth"; "Y3K Problem, Despite Scare, Did Not Emerge." And most importantly: "Earth Universities, Typified By Texas A&M University Lead World In Economic And Social Progress Through Their Programs of Public Service Through Engagement Built Around A Culture of Educational Excellence; It Began But Did Not End With The Historic Vision 2020 Document."

Well, why not? Why not? We are here for related purposes: to salute past and present faculty and staff of this university--and to think about what its excellence today means for tomorrow. And I am here to look ahead and propose, not just celebrate, and agenda of action of action and education in which public universities such as this great one can better serve the social and economic needs of society in ways geared to the new world of the 21st century.

I. ENGAGED WITH ITS SOCIETY AND THE WORLD: THE LAND-GRANT IDEA

None of us here needs a lecture on the land-grant concept, but we do need to remind ourselves that it is one of America's most distinctive and enduring contributions to education and social and economic progress. Yes, the concept grew out of the need to improve agriculture and the food supply in the 19th and 20th centuries--still critical needs. But it is really the idea that, whether or not they are traditionally tied to agriculture, universities' most fundamental reason for being is to serve citizens by discovering new knowledge, promoting teaching and learning, and disseminating knowledge through partnerships--what many of us now call engagement.

The land-grant idea has a rich history: the first Morrill Land-Grant Act of 1862; the Hatch Act of 1887 furthering agricultural experiment stations for scientific research; the belated--but essential--Second Morrill Act of 1890 creating seventeen historically black land-grant universities; the Smith-Lever Act of 1914 stimulating and promoting cooperative extension programs; and the 1994 legislation conferring land-grant status to Native American colleges. This legislation constitutes the philosophical and practical charter of our land-grant movement. It is all unified conceptually by one powerful ideal: the sole purpose of public universities is to serve all men and all women for the benefit of the broader society.

The land-grant model is a rich piece of our history in American higher education. And it is the heart--and soul--of Texas A&M since its founding in 1876. This university and all of the other land-grant schools in our 50 states and territories have countless great stories to tell. But I want us to look ahead and talk not about yesterday's victories, but about tomorrow's challenges and opportunities.

II. THE LEAD UNIVERSITIES OF THE 21st CENTURY: GLOBAL AND ENGAGED

The universities that are going to be mentioned and cited in The Wall Street Journal at the beginning of the fourth millennium are going to be global, internationally involved, and engaged with their society in ways that none of us here can fully understand or articulate--though we can surely appreciate the concept and the direction in which we are headed. We are, I firmly believe, in a new world that massively impacts how public universities will serve in the centuries ahead. Let me briefly describe the environmental factors that I believe are changing the context in which our American, and indeed all other universities, will operate.

(1) The first factor is the economic interconnectedness among nations. Every country's economy is impacted by--if not linked with--those of countries surrounding it and by the economies of other countries around the world. The most dramatic illustration of this fact is the proliferation of multinational corporations whose loyalty is tied to shareholders, not nations; their economic impact is transnational. Just as world money markets are linked through such giant banking firms as Deutsche Bank or Mitsubishi, the car makers of the future are typified by Daimler-Chrysler, and the oil companies by BP Amoco. (Last year corporate mergers worldwide involved assets totaling \$2.3 trillion.)

(2) The second environmental factor is the global shift toward democracy and, especially, toward market mechanisms, as opposed to "command and control" economic structures. Democratic political systems are far more widespread today than was the case twenty or thirty years ago. Even in China, the world's most populous country, while no sensible observer would argue that democratization has taken place, we see a trend toward increased power for local governments and enormous reliance on market mechanisms, instead of a centrally controlled economy.

(3) The third environmental factor is the emergence of consumerism. Certainly in the United States, but also worldwide, there is trend toward institutions serving consumers' needs and interests--whether companies' products or governments' services to their citizens. The operative philosophy is that the individual comes first. If his or her needs are not served, there will be political or economic repercussions against providers who fail to serve their customers. (There are implications here for

higher education, for universities must meet the interests and convenience of their students, not those of university administrators and faculty.)

(4) Fourth, within organizations there is a clear trend to flatter, as opposed to hierarchical, organizational structures that break down disciplinary lines. The idea is to give individuals and small groups more independence and discretion to further the mission of their organization. Small groups within large organizations are increasingly encouraged to work across disciplinary and organizational lines because this is less bureaucratic and more efficient; it frees pent up creativity that is too often blocked by rigid organizational and hierarchical structures. This trend is evident in business where it is an enormous challenge for such highly bureaucratic organizations as the General Motors Corporation; it is evident in banking in the United States, where banks and insurance companies are combining in ways that eliminate barriers in finance. We see it also in universities, where many educational leaders promote interdisciplinary programs and institutes to encourage professors to branch out. Unfortunately, too many faculty still are ensconced in the narrow professional interests of their discipline--to the detriment of the broader missions of the universities of which they are at least nominally a part.

(5) The fifth new factor for universities is the physical and biological environment, represented in global ecological issues. These issues leap national boundaries, but also cross disciplinary lines. Think of the pollution of our air and water, the deforestation of our planet's life-sustaining areas, and the complex issues of global warming.

(6) Although difficult to prove, we should recognize a sixth new factor: the emergence of global, multicultural values. Many parts of the world, including the United States, are riven with ethnic and racial tensions and fragmentation, but there is also a countervailing trend: a deeper appreciation of the richness represented by the ethnic groups, languages, and racial heritages of the world's population. Moreover, there is an enormous multicultural sports industry, represented by soccer, basketball, ice hockey, and track and field. Entertainment also is much more global today thanks to the new information technologies, a trend likely to grow. The need to appreciate and deal with multicultural values and issues is one of the realities of the new global system.

(7) The final environmental change in many ways mixes with the others, but it also stands out as a significant separate factor: the Digital Age as characterized by the Internet and the World Wide Web. Technology and the new information systems will not replace human interaction of the kind that we are having here, but today we are all, like it or not, globally interconnected. The information technologies are revolutionizing how we produce and market products and communicate and exchange ideas. I want to elaborate on this, because it is so significant. Cyber education, the digital and information technologies, are fundamentally affecting--perhaps even transforming--America's universities. They have had a huge impact on how we discover knowledge, transfer it to all who can profit from it, and apply it through our outreach and engagement with the communities and social and economic interests that we serve. All of the world's universities are going to be vastly changed--and they must take charge of that change.

Clearly, the research process will be transformed as teams of scholars in various disciplines communicate rapidly through the Internet and in other ways--in contrast to the relatively monastic and

individualized way in which scholars have traditionally operated. Information technologies create the potential for new workplaces not limited by traditional institutional boundaries, whether they be businesses or classrooms, libraries or laboratories. Computers and computing are incredible tools that--while not replacing human ingenuity and creative thinking--make it possible to communicate rapidly and to simulate the processes for discovering new knowledge.

Tomorrow's library will be different because of the various digital technologies, making it possible to move far beyond the communication of the printed word to a world of virtual reality and dazzling communication. Not only does this make possible new forms of intellectual discourse, but it also makes it unnecessary for every university to stock every possible periodical and book--which has become totally impractical.

The digital and information technology age suggests that universities will become far more learner-centered than faculty-centered organizations, and that they will join in partnerships with other providers from the public and private sectors. Indeed, the results of a new survey of NASULGC members' investments in information technology document that such shifts already are well under way. Sixty-nine percent of the respondents to the survey said that adding and upgrading computer capabilities for students was one of their top three priorities for their investments in information technology. Sixty percent cited adding and upgrading equipment for faculty and staff members as among their top priorities, and 45 percent cited integrating new technology in the classroom as a major priority. On average, the responding institutions are sinking approximately 5 percent of their operating budgets into information technology. Just as impressive, two-thirds of the respondents now are participating in a "virtual university" or are a partner in some other type of distance-education project that relies on information technology to benefit non-traditional students.

This suggests that lifelong learning will become a mainstream preoccupation for our universities, simply because lifelong learning is essential to economic and social development in an information age. The new asynchronous, information technology-driven education makes it possible for all levels of education to be truly interrelated. Interactive and collaborative learning can now be a reality for an infinite number of learners, regardless of the time of the day or their geographical location. We are moving from an age of knowledge controlled by a relatively few masters and specialists, to "a culture of learning" in which we are constantly surrounded and immersed in learning experiences.

III. GLOBALLY INVOLVED, ENGAGED IN SERVING PEOPLE

This takes me to a major, forward looking, activity of the association I am privileged to lead. It is the Kellogg Commission on the Future of State Universities and Land-Grant Colleges in which Texas A&M and President Ray Bowen have been major players. One of our calls to action, entitled *Returning to our Roots: The Engaged Institution* speaks from the history and perspective of the land-grant idea of educational service to people, community and society. That report comes from a marvelous and representative selection of universities, including the 1890 universities, the Indian tribal colleges, the traditionally agriculturally involved universities, and the urban and metropolitan universities. All of them are public; all of them are committed to discovering and transmitting knowledge and applying it to meet human needs as defined not only by the university, but also by our society. Our engaged

university report speaks to our responsibilities and opportunities in the United States and in the world. We describe engagement as having three characteristics:

- (1) Being organized to respond to the needs of today's students and tomorrow's, not yesterday's.
- (2) Enriching students' experiences by bringing research and engagement into the curriculum and offering practical opportunities for students to prepare for the world they will enter.
- (3) And putting universities' knowledge and expertise to work on the problems their communities face.

If you have not, look at this report; look at the illustrations it provides of successful models of engagement and illustrative examples of the rich opportunities that lie before us in the 21st century.

The Commission's engaged institution report is not a single road map, but a number of road maps, insisting that the leading and most useful universities of the 21st century will be those that expand their engagement with society. They will do so by providing educational expertise and service to communities in partnerships involving other organizations and interests. Their engagements will provide rich opportunities for students to learn and faculty to teach effectively through internships, community-based projects, and activities as varied as the human imagination.

Even more, this engagement provides opportunities for faculty to gather data in countless new arenas, leading to new results and expanding their own learning. To those who might be skeptical that such opportunities exist, I need point only to the example of the significant work in the vital field of child and youth development. Excellent examples include such places as The Center for the Study of Child and Adolescent Development at the Pennsylvania State University and the Institute for Children, Youth and Families at Michigan State University. Further illustrations can be found in a superb book by Mary L. Walshok entitled "Knowledge Without Boundaries"; it provides compelling illustrations of the success of community-engagement programs at the University of California at San Diego.

And when it comes to engagement--based on the quality of its educational programs that discover new knowledge and promote learning and understanding--there is no university more ready to build on a record of engagement that serves public needs more than this Texas A&M University. This is the lifeblood of this Aggie University, not to be a joke or a put down but an affirmation of excellence in agriculture, engineering, the life sciences, the arts and the humanities, the human and environmental sciences, and any discipline we might name. Not only historically in its leading agriculture and engineering programs, but in so many other ways Texas A&M is engaged and will be even more engaged.

In reviewing some of the many partnership programs of Texas A&M--and partnership is what engagement is all about--I gave up counting, of time. But it begins with the imperative of excellence in the research, scholarship, and teaching of the faculty. And it makes great common sense to assert this imperative: while Texas A&M is locally based in a particular community, as all universities have traditionally been, A&M intends to even more diversify and globalize itself in that global environment that I described earlier. And also correct is the imperative of striving to increase access to the knowledge resources of this university by building community and metropolitan connections--a bulls

eye comment. If you will, your Vision 2020 document, Mr. President, is in effect a profile of the Kellogg Commissions engaged institution; it is a returning to our roots, and it makes it clear why those roots will extend and nourish both a Texas--and this must come first--and a global service area.

Ultimately, of course, true engagement in the university of the 21st century will not occur unless the boundaries of academic disciplines erode in ways that facilitate inter- and multidisciplinary work by university teachers and researchers. Nor will it happen unless administrators reward faculty members' involvement with their communities in the real currency of the realm: status and salary. The obstacles and barriers may seem formidable, but they are not insuperable. Overtime America's universities have always responded to the needs of the society--transforming a rural America into an industrial America, serving the national interest during the Second World War and the long Cold War, and helping transform America and the world into a knowledge-and information-driven society. Readapting the land-grant philosophy as engagement in partnerships with the community and, more broadly, the society is the right thing to do. It is also the smart thing for America's universities, which need to attract the continued resources required for their fundamental missions of discovering, disseminating, and applying knowledge. The focus on engagement by the Kellogg Commission's 25 presidents and chancellors of public-serving universities points in the right direction--toward the millennium we are now entering.

IV. LOOKING AHEAD: THE 21ST CENTURY AND THE NEW MILLENNIUM

Those universities that will be the greatest in the new century will be the ones that adapt so that they continue to exemplify the land-grant idea of serving people. A thoughtful piece by Dina Oblinger, who is involved both with IBM and the University of North Carolina, makes a compelling point:

Perhaps most importantly, globalization represents a structural change. When a structural change occurs, things never go back to the way they were. Globalization is inextricable. It will not be reversed; it cannot be legislated away. One of our educational challenges is to integrate this concept into the curriculum in a meaningful way so that we can capitalize on, rather than be constrained by, globalization.

The issue in this global environment, in which university excellence fused to engagement is the imperative, is not whether these trends will continue. It is how we will respond and lead in this new context. It will not happen just because of a speech on a delightful day in Texas. It will only happen if men and women in our universities have passion fused to their competence, if they have vision and a willingness to lead. Engagement requires men and women--such as this faculty and staff--who personally reach out, who have vision, and who lead.

Since my theme has been engagement and globalization, I quote a person who has been a hero of mine since I was a teenage boy in ravaged post-war Europe after World War II. I refer to Jean Monnet, in many respects the philosophical and practical father of the new Europe and the European Union. He once said:

I am not an optimist. I am merely persistent. If action is necessary, how can one say that it is impossible, so long as one has not tried it.

Life is a prodigal of opportunities to act, but one has to be prepared, by long reflection, to recognize them and exploit them when they occur. Life is made up of nothing but events; what matters is to use them for a given purpose.

As a boy in 1946, I never would have believed that the Europe we see today would come to life, a Europe--despite the problems that still exist and the horrors in the Balkans--in which people of so many rich nationalities work and live in peace. But that has happened thanks to the vision and action of individuals such as Jean Monnet and, of course, many others.

I conclude by passionately affirming that, despite the conservatism that attaches to universities, we can change if we wish to change; if we understand the imperatives for change; and if we have men and women such as you willing to take on the risks and challenges of leadership. And so my vision for this marvelous Texas A&M University, for all of our state and land-grant universities, and for all of higher education is this: that those headlines and stories in The Wall Street Journal on January 1, 3000, tell the story of vibrant, vital, people-serving universities engaged with both their communities and the entire globe.