

Reforming U.S. Higher Education

C. Peter Magrath

The Scene in the United States

I speak from the United States perspective and inevitably reflect some of my nation's cultural mind-set. I mention this to make the point that I do not wish to prescribe what should be done by universities in other nations, but rather to describe the issues in higher education as I see them for whatever value they may have to other internationally engaged universities. In turn I hope to learn from colleagues from around the world. But I affirm this proposition: all of us are attending this conference because we care about nutritious food and related services for the citizens of our world. And we all recognize that universities have much to contribute toward this fundamental objective. Certainly my nation's prosperity has been built on the development of scientific expertise in the food and agricultural sciences.

Today in United States higher education, many of us believe that change and reform are essential. Yet one might ask, why should we need to reform? After all, it is successful in providing opportunities for an enormous segment of our population and clearly it is effective in discovering new knowledge—through research and extension—and making that knowledge useful and usable. Many of my colleagues like to say, at least to themselves, that our system of higher education is in many respects “the envy of the world.” Whether that is true or not, there is evidence that our system is effective for our country. Why, then, bother with an agenda for reform and change—since we all know how resistant to change most humans are. I suggest three reasons change and reform are imperative in U.S. higher education.

Avoiding mediocrity

The first reason is basic: even when an enterprise is good, resting on one's laurels, and being content with the status quo, is a recipe for disaster. If our public universities and colleges are content to continue their work in the new century as they have performed it in the century now ending, they will be marginalized and slide gradually, but definitely, into mediocrity.

Why? Despite the economic benefit that universities contribute to my nation, resources from both state and federal governments have declined significantly in recent years. This trend is likely to continue, meaning that our universities need to be more imaginative and entrepreneurial in attracting the resources needed to serve the public interest. Relatedly, the very success of universities at times leads to indifference and arrogance as to how those of us in higher education relate our work to the needs of our society, including the attention we pay to undergraduate students. So we must engage in confidence building measures to attract public support and understanding: we must demonstrate that we use all our resources efficiently; show that our faculty are truly productive; and manifest—in the context of the twenty-first century—the value of what we do in the research arena.

Adapting to new technology

The second reason that change and reform are imperative is that technology is having a dramatic impact on how educational services, particularly the transmission of knowledge, are delivered. Let me put this as clearly as I can: what many of us call information technology systems are revolutionizing how we produce and market products and how we communicate and exchange ideas. Universities that do not adapt and creatively use the opportunities of the digital age as characterized by the Internet and the World Wide Web will be marginalized. As much as any other factor, this development of technology which actually is a consequence of research and development done within universities, makes change and reform imperative.

I wish to comment more extensively on this factor, which I label the new world of cyber education. Technology and the new information systems will not replace human interaction of the kind that we are having at this conference, but today, like it or not, we are all globally interconnected. Cyber education and the digital and information technologies are fundamentally affecting—perhaps even transforming—our universities. They are having a huge impact on how we discover knowledge, transfer it to all who can profit from it, and apply it through our outreach to 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 also create the potential for new workplaces not limited by traditional institutional boundaries, whether they are businesses or classrooms, libraries or laboratories. Computers and computing are incredible tools that, although not replacing human ingenuity and creative thinking, make it possible to communicate rapidly and to simulate the processes for discovering new knowledge.

Tomorrow's libraries will also be different because of 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 will technology make possible new forms of intellectual discourse, but it also will make it unnecessary for every university to stock every possible book and periodical, 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 National Association of State Universities and Land Grant Colleges members' investments in information technology document that such shifts already are well under way. Sixty-nine percent of the survey respondents 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 investing 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 partnering in some other type of distance education project that relies on information technology to benefit nontraditional students.

Lifelong learning will become a mainstream preoccupation for our universities, 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 by and immersed in learning experiences.

Recognizing the impact of globalization

The cyber education revolution contributes to the third major reason we must undertake reforms; indeed, it is why we have come to this conference from all over the world. I refer to the impact of globalization on universities throughout the world. I suggest that there are a number of factors impacting on all universities regardless of their physical location, traditions, current practices, or aspirations.

The first is the fact of economic interconnectedness among nations; every country's economy is impacted by, if not linked with, the economies of countries surrounding it and 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 carmakers of the future are typified by Daimler-Chrysler, and the oil companies by BP Amoco. (In 1998, worldwide corporate mergers totaled \$2.3 trillion.)

The second globalization factor is the world shift toward democracy and, especially, market mechanisms as opposed to "command and control" economic structures. Without going into an analysis of complex developments, I suggest that political systems of representative democracy are more widespread today than was the case twenty or thirty years ago. In China, the world's most populous country, there is a trend toward increased local government power and enormous reliance on market mechanisms instead of a centrally controlled economy.

The third globalization factor is the emergence of consumerism. Certainly in the United States, but also worldwide, there is a trend toward serving consumers' needs and interests, whether in economic products or in government services. 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 do not provide—who fail to serve their customers. There are major implications here for higher education: universities increasingly must address and serve the needs of their students as consumers in ways that meet students' interests and convenience, not those of university administrators and faculty.

Fourth, within organizations there is a clear trend to flat, as opposed to hierarchical, organizational structures, joined with the breaking down of 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 releases pent-up creativity too often blocked by rigid organizational hierarchical lines. This trend is evident in business where it poses an enormous challenge for the highly bureaucratic General Motors Corporation; it is evident in banking in the United States where banks and insurance companies are combining in ways that break down barriers in finance. We see this trend also in universities where many educational leaders promote interdisciplinary programs and institutes to encourage professors to work with colleagues from different disciplines. Unfortunately, faculty are typically ensconced in the narrow professional interest of their discipline, to the detriment of the broader mission of the university of which they are at least nominally a part.

The fifth new context for universities includes the physical and biological environment: global ecological issues. These issues leap over national lines but also across university disciplinary lines. Think, for instance, of such issues as the pollution of our air and water, the deforestation of our planet's life sustaining areas, and the complex issues of global warming. A study entitled *Strategies for a Global University* published by Michigan State University in 1995 points out that:

The problems of transnational acid rain, deforestation, greenhouse effect, ozone depletion, and other matters of global ecology have mandated new thinking and action in the public arena. These issues will remain an important agenda for research and public policy. (p.5)

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 for 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—that cuts across national lines; U.S. universities have played a prominent role in this development, in part because athletics is, for both better or worse, a prominent feature of our universities. Entertainment is much more global thanks to the new information technologies, a trend likely to grow. Appreciating and dealing with multicultural values and issues in the broadest sense is one of the realities of the new global system.

The Leadership Question

Reform in any university anywhere in the world cannot occur unless there is a vision passionately believed in and furthered by leaders. If we want change or reform, it will not happen casually or simply by its bubbling up within a university. There may be ferment for change within a university and a desire for adaptation. But change will not occur unless there are leaders willing to step up and step out and provide direction and articulate a vision that can unite men and women to work for needed change, building on the accomplishments of the university and its history, but pointing unequivocally to the future.

One of my favorite quotations comes from Shimon Peres, the former Prime Minister of Israel:

A leader must be like a bus driver. Namely, he cannot turn his head all the time backward to see how the passengers feel. He'll make them nervous. You want him to sit at the wheel, watch the road and keep the wheel. We are not in the business of pleasure. We are in the business of leading. (Washington Post, 1995)

And this leads me to an enterprise with which I have been closely associated, joined here by a number of my colleagues, such as Martin Jischke of Iowa State University and Constantine Curris of Clemson University and strongly supported by Vice President Rick Foster of the Kellogg Foundation. It is the Kellogg Commission on the Future of State Universities and Land Grant Colleges. Over 25 state and land grant universities in the United States came together a few years ago, generously supported by the Kellogg Foundation, convinced that they should take charge of change and lead the way to needed reforms due to the changes occurring in America, in the world, and in higher education.

The fundamental assumption of the Kellogg Commission was stated in one of our early pamphlets:

None of us—faculty, presidents, or trustees—can afford to ignore these issues while defending narrow, outdated positions. Basking in the reflections of past glories, we will lose sight of today and risk tomorrow. We have to persuade the American people that we are good enough to lead, strong enough to change, and competent enough to be trusted with the nation's future. In brief, we must take charge of change. (*Taking Charge of Change*, Kellogg Commission, 1996)

This Commission, now approaching the conclusion of its work, is led by chancellors and presidents of leading universities who are committed to working for change within their universities and to promoting the cause of change by working together as a collective “reform club.” These commission members have met often for intense debate and discussion, and they have listened carefully to lay advisors, business leaders, former trustees, and other leading citizens to make sure that they were also listening to the public and the larger society we serve.

The Work of the Commission

I will sketch briefly the actual issues that the Kellogg Commission has engaged and promoted, and that are making an impact on many of our public universities. We have issued action calls that do the following: insist that students, all students, must be put first in the work and mission of our universities; insist that access for as many as humanly possible in our population is critical to the success of our society; and insist that we are in a continuous learning society in which learning through all means possible, including cyber education and throughout life, is absolutely essential to a healthy society and economy. In addition, we will soon issue a report on our university and academic cultures—how they can be changed and modified to reflect the realities of the twenty-first century. We will conclude by issuing a millennium report in March, 2000, charting four or five critical issues and directions that we believe are imperative for U.S. universities.

I have deliberately omitted one report that has been perhaps our most talked about and most successful. It is called *Returning to Our Roots: The Engaged Institution*. It was put together and led by the chair of this conference, President Martin Jischke of Iowa State University.

Although our engaged institutions report comes out of the U.S. context and experience, it may have relevance for the efforts you are making in your universities and your nations. This report speaks from the history and perspective of the U.S. land grant idea of educational service to people, community, and society. And it comes from a marvelous and representative selection of universities, including our historically Black universities, the American Indian tribal colleges, the traditionally agriculturally involved universities, and the urban and metropolitan universities. All of them are public; all are committed to discovering and transmitting knowledge and applying it to meet human needs as defined not only by the university, but also by 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; and (3) putting universities' knowledge and expertise to work on the problems their communities face.

If you have not already done so, look at this report; note the illustrations it provides of successful models of engagement and illustrative examples of the rich opportunities that lie before us in the twenty-first 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 twenty-first 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 for faculty to teach effectively through internships, community-based projects, and activities as varied as the human imagination.

In addition, this engagement will provide opportunities for faculty to gather data in new arenas, leading to new results and the expansion of their own learning. Ultimately, of course, true engagement in the university of the twenty-first 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.

Over time, our universities have always responded to the needs of the society: transforming a rural nation into an industrial one, serving the national interest during the Second World War and the long Cold War, and helping transform the United States 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, with the society is the right thing to do. It is also the smart thing for universities, which need to attract the continued resources required for their fundamental mission 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.

Reform Within Agricultural Universities

What does this U.S. effort have to do with this conference? It is relevant to our efforts to organize and work together on behalf of an overriding common good: good food for the people of the world. The Kellogg Commission reform effort is an important illustration because agriculturally engaged universities are among the most important, not only in my country but throughout the world. It is not a coincidence that the overwhelming number of universities in the Kellogg Commission are agriculturally engaged universities, which we call land grant universities. Originally, many of our public universities were built around colleges or facilities of agriculture, but these have diversified and expanded into multipurpose universities in response to social needs. They remain vital for a simple reason: because food is critical. Where food production and distribution are neglected, society suffers, and there is no economic development.

Reform within our world's agricultural universities is important, not only for the reason I have just stated, but because these universities have the capability of being, literally, leading lights for all universities and their work which ought to be to serve society.

Agricultural universities have always had a practical orientation of helping to produce food and furthering its distribution; this has been the case in my country where our agricultural universities in the century now ending have revolutionized food production.

But if these universities are to lead the way by exemplifying the importance of developing products and promoting education that benefits society, they must overcome a double challenge. First, they must step out of the shadow of prejudice and victimization that has often been directed at them by many who represent elite scientific universities. At least in the United States, there has always been a perception that the study of agriculture and food—the preoccupation of our land grant universities—is a nice and wonderful thing, but not quite deserving of the respect that we attach to quantum physics, molecular biology, or the study of philosophy. I disagree, believing that all academic and educational endeavors are equally important and worthy of respect if they help educate men and women and if they help, one way or another, to serve social needs and interests.

The second challenge to be overcome is that too often our agriculturally engaged leaders, reacting to the prejudice and isolation they have encountered, have isolated themselves. They have become too parochial and ignored forging alliances with other interests in our society (such as those who are based in urban areas). In a sense, they have become complacent, an attitude made easier by the fact that they have had a reasonable stream of guaranteed funding from our federal government through various programs administered by the United States Department of Agriculture. Too often our agricultural universities have been content to be isolated and left alone, drawing on the resources available to them through certain formula funding programs, which unfortunately have been seriously eroding in recent years.

It is for these and other reasons that a number of significant initiatives and questions are being raised by leaders of our agriculturally involved universities and their allies and friends. The Kellogg Commission is, of course, a major reform project that addresses some of these issues. But I also want to emphasize another major initiative of the Kellogg Foundation: the Food Systems Professions Education initiative intended to help our agriculturally engaged universities plan imaginative, new

ways to promote and improve food systems education. This initiative, which is represented at this conference by a number of agriculture and food systems leaders, promotes not only innovative thinking but new collaborations among higher education, communities, and business partners.

This Food Systems Profession Education initiative is deeply concerned about the health of the world food system and the interrelationships that must be developed among science, economics, social, and political dimensions so that a global food network can be developed to meet the complex needs of the twenty-first century. This initiative relates directly to the fundamental assumptions underlying the larger reform movement of the Kellogg Commission that I have described. As a consequence of these realities, my association has committed itself to examining the challenges for agriculturally engaged universities in the twenty-first century. We will do this by developing a rationale for a major new investment in agricultural education tied to the vital need to improve health care by having healthy food, enhanced nutrition, and improved food safety—if you will, a preventative approach to disease and health problems. This initiative will also focus heavily on international agriculture because we believe that the United States has to work cooperatively and collaboratively with other universities and nations to address the serious problems of malnutrition in our world—a world that is an interconnected global economy.

Finally, we believe that none of these initiatives can succeed unless we strike the right balance with the environment so that agriculture and forestry can be major contributors to a knowledge base that preserves and enhances the environment and the quality of life beyond simply providing food and fiber. We must all work to maintain open green space, reduce the pollution problems caused by certain kinds of agricultural production, maintain the biodiversity essential to our world, and conserve energy sources. These are large challenges and an ambitious agenda. But I have no doubt that dedicated educational leaders from our agricultural universities can accomplish these objectives, just as universities have often accomplished daunting objectives.

Reform: The Ultimate Social and Environmental Sensitivity

In short, the reform agenda applies to each and every one of us at this conference, regardless of our different cultures, university systems, and specific circumstances. We are, for better or for worse—and we must make it for better—in a global and interconnected economy. The Kellogg Commission and the Food Professions initiative that I have described believe that visionary leaders, men and women who are willing to step forward and step out, can bring about change.

If it does not start with individuals such as those of us at this important conference, change will not happen. I believe that we all still retain the idealism that originally got us involved in university work. I ask, what can be more important than having a strong network of agriculturally engaged universities throughout the world, despite differences in our political systems, committed to the proposition that nutritious food distributed to all the people is a fundamental social and moral good? And who more than agricultural universities are better positioned by their commitment, experience, and idealism to provide this leadership, and therefore not only accomplish an immense social good but also bring the necessary prestige and recognition to their efforts.

Those who know me know that I am probably the least likely person imaginable to identify myself with Karl Marx. But running through my mind are a couple of the famous lines in his 1848 Communist Manifesto in which he exhorted the workers of the world to unite because of the proposition that the only thing they had to lose was their chains. Let me reformulate, at this conference of global agricultural universities, what I will immodestly label as Magrath's Manifesto:

*Agricultural universities of the world unite!
You and the world you serve have much to gain!*