WORLD GRANT UNIVERSITIES:
Meeting the Challenges of the Twenty-first Century

BY LOU ANNA K. SIMON

Lou Anna K. Simon is president of Michigan State University, where she served as provost and vice president for academic affairs from 1993 through 2004. Her commitment to the land-grant approach of applying knowledge and resources to benefit society locally and globally is reflected here.

Keeping core land-grant values relevant to society’s changing needs fuels greater societal prosperity—prosperity that is sustainable, prosperity that is anchored in the common good, prosperity that validates the worth of empowering people from ordinary backgrounds to do extraordinary things through education and cutting-edge knowledge.

The World Grant Ideal

Today American higher education urgently needs bold thinking coupled with innovative actions if the United States is to meet the challenges of the 21st century—thinking and doing that goes beyond requests for more funding and accountability and beyond our tendency to look at what individual institutions do well and can contribute to global prosperity. We need a provocative and thoughtful vision of how higher education’s core values can reinvigorate the public trust that all universities must have in order to help the nation build sustainable global prosperity for the 21st century. And we need to be clear about the distinctive contributions that institutions of various types will make to that prosperity.

The World Grant Ideal

More than 150 years ago, Abraham Lincoln signed the Morrill Act, thereby launching the land-grant college and university movement. The results of this 19th-century legislation were revolutionary. Land-grant institutions became a model for the world in empowering ordinary people through an advanced education that was excellent enough for the proudest yet open to the poorest. The Morrill Act created an engine of prosperity for the common good of states and the nation.

The celebration of the Morrill Act’s sesquicentennial in 2012 presents an opportunity to revisit its historic “first principle”—the democratization of education and knowledge—and to extend it beyond state and national borders. This re-envisioning of the land-grant mission is what we at Michigan State University are calling the World Grant Ideal.

The challenges we face are 21st, not 19th century, in nature. We cannot apply land-grant principles that worked in the 1800s and 1900s directly to the modern age. Instead, we need to contemporize the values that motivated universities in Lincoln’s time to become catalysts for change and societal development.
Michigan State University was constructed to facilitate collaboration and interdisciplinary research throughout the sciences. (Photo by Kurt Stepnitz/Michigan State University)
In the broadest sense, the challenges confronting the United States today parallel those that led to the passage of the Morrill Act in 1862. Now, as then, we must educate students for the jobs of the future as well as the present. But given the pace of change in contemporary society, we must increasingly produce graduates who are learners for life, capable of adapting to changes in the processes and nature of work in a global economy and committed to contributing to the well-being of their communities and places of work. Given the complexities of modern life, we must educate a more adaptive, innovative, and engaged citizenry.

Now, as then, we must also create, disseminate, and apply knowledge that drives economic development and creates jobs. In an increasingly interconnected world, however, problems span the boundaries of disciplines, states, and nations. If our institutions are to serve as engines of societal growth and transformation—if we are to move states and nations toward more sustainable prosperity—our research and teaching will need to cross those boundaries.

Quality, Inclusiveness, and Connectivity

Contemporary land-grant universities need to adapt their core values of quality, inclusiveness, and connectivity to 21st-century realities. The first principle of the land-grant commitment is to extend the benefits of education beyond the social and economic elite and to integrate the liberal arts and sciences with knowledge that is practical and applied. The transformative power of the land-grant vision continues into the 21st century with the need to convey the findings and benefits of research-based knowledge directly to the public and to engage with those outside the academy as partners in the creation and implementation of knowledge.

Quality represents a commitment to utilize an institution’s strengths to the fullest and to develop programs of highly regarded research and education across the arts and sciences—both basic and applied—as well as professional fields of study. These programs provide a solid basis for analytical thinking and continued learning across multiple fields of knowledge to ensure an educated and skilled citizenry that can adapt to today’s radically changing reality.

Inclusiveness reflects a commitment to make higher education broadly accessible to all who seek to advance themselves through knowledge. Inclusiveness entails the creation of learning communities that foster both intellectual and personal engagement leading to enhanced understanding, respect, and the celebration of differences. It is rooted in the conviction that the skills and knowledge derived from such engagement prepare individuals for meaningful and productive lives and should be available to all.

Connectivity is a commitment to work in collaboration with a range of partners both within and beyond the academy. These collaborations to create and to apply new knowledge to solve the most difficult societal problems extend across boundaries of nations, cultures, fields of study, and institutions. In most cases, these collaborations involve participants in the co-creation of knowledge through direct engagement with local communities whose challenges have larger global dimensions. These engagements forge and sustain connections where none previously existed.

The World Grant Ideal in Action

The following examples illustrate the World Grant Ideal in action today.

Investigating and Treating Disease at Home and Abroad

Michigan State University (MSU) researchers work in Africa to combat malaria, a disease that kills as many as two million children annually. In doing so, the university creates international scholarship and outreach opportunities for students and faculty, improves our understanding of disease etiology, and builds community-based capacity for improving lives.

Since 1986, Terrie Taylor, university distinguished professor of internal medicine in MSU’s College of Osteopathic Medicine, has divided her time between Malawi and East Lansing—an arrangement designed by MSU to enable her to integrate her research, teaching, and outreach roles. Taylor investigates cerebral malaria and its effects on children. Through a partnership that comprises MSU, Malawi, and GE Healthcare, Malawi’s first and only MRI unit was set up to allow Taylor and her colleagues to observe cerebral malaria and to better understand and treat its progression.

Before the arrival of this MRI unit, such studies could only be conducted postmortem. Not only has this work yielded new drugs and improved treatment, but continued research may ultimately lead to a cure or vaccine.
Additionally, Taylor assembled a group of physicians and insect scientists in an effort to discover other solutions to eradicating malaria. Entomologists and other researchers are studying how insecticide-treated bed nets can disrupt the population dynamics of malaria and prevent its spread, reducing malaria-related mortality by almost 50 percent. Bed nets are a powerful, cost-effective (about $10 a net), and simple tool to save lives.

Taylor’s approach to malaria research has been multipronged, involving health care, environmental and insect control, and community engagement. This model has led to an increased understanding of malaria and other insect-borne diseases, as well as a treatment protocol that has decreased human and animal susceptibility to such illnesses and promoted better health around the globe.

**Addressing Hunger and Nutrition**

As MSU researchers work on better ways to feed the world’s populations, they are simultaneously working toward solutions to related problems. For example, as they study the world’s carbon cycle, researchers are also addressing climate change and co-creating improved local economies with some of the world’s poorest farmers.

In the MSU Carbon2Markets project, faculty and students, working with local farmers in ten African and Asian nations, are helping introduce valuable perennial tree crops into these developing countries. One of the crops, the jatropha tree, harbors carbon dioxide efficiently and produces nuts that can be pressed for oil, which then can be refined into biodiesel, making it a valuable cash crop in these rural economies. The farmers measure and record the carbon stored by their trees and soil, providing data on carbon storage to researchers, who use this research information to create further knowledge.

**Clean Water for the World**

The Great Lakes are the largest freshwater system on Earth, containing approximately 21 percent of the world’s freshwater supply. This makes them a vital resource for the region and the world. At Michigan State University, researchers study water and how to preserve it through a network of centers and institutes connecting faculty and students in the sciences, natural resources, technology, and education. Working collaboratively with communities around the world, MSU researchers address issues from watershed management to human and ecosystem health associated with water quality and quantity.

This set of World Grant examples—focused on disease, hunger and nutrition, and water—illustrate how Michigan State University applies its contemporized land-grant values to 21st-century challenges on behalf of sustainable prosperity at home and abroad. As should be clear, the World Grant Ideal model works from the bottom up just as concertedly as it does from the top down.

To be successful in this work, a university should have the ability to enter into a relationship with partners who may lack academic credentials but possess nuanced cultural or technical knowledge about a particular place or set of circumstances. A sense of reciprocity allows the partners to work together as equals. These partnerships are rooted in an understanding that

Joan Rose, the Homer Nowlin Chair in Water Research at Michigan State University, analyzes water in environmentally compromised areas for pathogens and debris. (Photo by Kurt Stepnitz/Michigan State University)
university researchers can learn from their community partners, just as the partners can learn from the researchers.

**States, the Nation, and the World**

A university in the land-grant tradition runs the risk of seeming to abandon its founding mission of serving its home state by engaging with nations and cultures beyond its own borders. In our case, the state of Michigan now has the highest unemployment rate in the nation. Some may ask whether a public or land-grant university in a state with such severe challenges has any business extending its reach beyond the urgent needs that exist within its state’s own boundaries.

But any state seeking to be prosperous in the global economy of the 21st century must extend its vision outward in order to understand the larger context of its own challenges and opportunities. It must reach beyond its borders to engage problems on a broader scale. In a global society, we cannot adhere to a protectionist view of knowledge and capacity-building that considers a university’s involvement in other settings to be depriving residents of the home state. The land-grant university has always embraced the principle that knowledge gained in one setting should be widely disseminated to advance the public good in other places.

By engaging with other nations and cultures, we take the university to the world; at the same time, we bring the world to the university and to the state. The resulting new insights, enhanced understanding, and goodwill confer benefits to all parties, including the communities, businesses, and citizens of the university’s own state.

As higher education becomes more important to global competitiveness—for individuals, regions, nations—world-class scholarship combined with traditional land-grant values adapted to the 21st century can play a key role that extends beyond the land-grant institutions. Even as we are being squeezed economically, higher education as a whole is now granted a collective opportunity to create sustainable global prosperity that goes well beyond the finances and fortunes of any single institution, institutional type, state, or nation. We all need to seize that opportunity by adopting the World Grant Ideal.

University Distinguished Professor Terrie Taylor’s groundbreaking research on severe childhood malaria in Malawi has led to significant advances in treatment options for the millions of children contracting this disease annually. (Photo by Jim Peck/Michigan State University)

For a more extensive discussion, including additional details of the characteristics of the World Grant Ideal and the embedded references and citations, see L. A. K. Simon, “Embracing the World Grant Ideal: Affirming the Morrill Act for a Twenty-First-Century Global Society,” available at http://www.worldgrantideal.msu.edu.