A. INTRODUCTION

An ‘Ivory Tower’ enclave isolated from the ‘real world’ was a common, (though annoying) characterization of a university when I was a student. But a consequence of being “outside” of society was that universities were largely left alone when deciding how to serve their intrinsic mission to discover, create and disseminate knowledge. Students had to adjust to university rules, and schedules were largely chosen to serve university needs. Under the heading of “be careful of what you wish for”, university responsibilities have broadened steadily overtime on both new and old frontiers so that services provided to students, industry, communities, the nation, even internationally – services to society broadly - now rank along side teaching and research as primary university responsibilities. With the passing of the ivory tower into the historical record and the shifting of public university responsibilities and financial support towards serving societal needs, comes a diminution of imagination inspired study.

B. GLOBAL DRIVERS OF THE UNIVERSITY VISION

Predicting the future is futile. However, Oliver Wendell Holmes advised “The great thing in this world is not so much where we stand, as in what direction we are moving.” He said “in what direction”, and not “where we are moving”. Let’s highlight the ‘global drivers’ of our direction and use them to foretell ‘strategic issues’ that public research universities will face in the next decade.

Global Driver 1. Accelerating change

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1 Former President of the University of Maryland 1998-2010
With our world society experiencing waves of accelerating changes in many different arenas—information, economic, financial, environmental, security, energy, disease, food, and water to name a few—research universities find themselves standing on the curl of all these waves and trying to not get “rolled” by them. The dynamism of this new environment necessitates a public university’s strategic vision be re-framed frequently because its underpinning mission and service responsibilities, opportunities and challenges are changing continuously and often significantly. Change cannot be ignored. For instance none of the top-ten U.S. employment opportunities in 2010 existed in 2004, and most of the key strategic issues facing U.S. society today were not primary a decade earlier either. With increasing responsibilities to global societies comes the obligation to recognize and serve their rapidly changing realities. Today the ivory tower is not visible in the rear view mirror.

Accelerating change results in a shortening time horizon for response whether we speak of business decisions, product life cycles, employment opportunities, disasters, or research opportunities. The connectivity that links talent, markets, finance, manufacturing, research, development, service and education globally has expanded opportunities for industries, universities and individuals alike. There are diminishingly few national companies remaining. And where people earlier migrated at great personal risk to opportunities for a better life, today those with talent can often ‘migrate through cyberspace’ to opportunities. This globally connected society requires the higher education systems that serve it to be strategically global too.

Universities are designed to not change rapidly. University cultures and governance processes slow response to change even while change is accelerating in surrounding society. This reality challenges university leadership to be prescient about change so that the university can be less buffered by it.

Strategic Issue #1 The combination of global connectivity and accelerating change will increasingly create abrupt disruptions. Universities must develop the mindset and processes to respond to disruptive change.
Global Driver 2. Accessible and inexpensive global communications

Access to nearly instant communications in both the developed and developing worlds is a disruptive technological change that has opened remarkable opportunities for business, people, government and universities alike. Every young person in the U.S. sends 100 text messages a day; one-third of the world population has fast Internet access, and there are more cellular telephones in the world than there are people. If Facebook were a country, it would be the world’s third largest with 800 million plus users expected in 2011. University networks are among the largest, most open and connected globally. Knowledge and information on them moves freely throughout the world. Communications and networks position Universities to engage on a global footing and many do. But most have not taken full advantage of the available communication capabilities in part because they change so fast.

Strategic Issue #2 More effective use of communication technologies in essentially every aspect of university operation is a primary university challenge and opportunity.

Global Driver 3. Partnerships and engagement paradigm

International relationships during the cold-war (1945 to 1990) were characterized by “isolation and control” of information for commercial and military advantages. Innovation Control underpinned national policies that shaped international relations during that period.

However, between 1990 and 2000 in an almost complete reversal in paradigm, innovation control was replaced by innovation creation through “partnerships and engagement” which now underpins global behavior. Communications and globalization after the cold-war made control of innovation no longer possible except in very limited circumstances, so being fast and first in innovation, even for a short period, became the strategy.

Partnerships and engagement to accelerate innovation is the basis of relationships today whether we speak of countries, companies, universities or people. The assembly of talent, resources, and capabilities to accelerate
‘getting things done’ quickly and efficiently are the drivers. Universities must engage, must have impact, and must do it today. Today’s students also want to ‘do it themselves’ or ‘do it together’ and to ‘learn while doing.’ Relevance and substance are tied together for them.

Strategic Issue #3 “Partnerships and engagement” on a global platform will be imbedded in the university vision and will characterize university operations for many if not most of its functions.

Global Driver 4. Globalization

Globalization connects people, industries, universities, and countries well beyond its initial association with business. This connectivity brings unanticipated trickle-up as well as trickle-down values.

Essentially all business is globalized. Business either sees a world without national borders, where markets, talent, finance, manufacturing, research, and development are distributed globally or sees one formed by multinational subsidiary entities each with its own business model and set of masters.

Strategic Issue #4 Universities must prepare students to prosper in global careers, responsibilities and understanding. “Working around the world” for them will be similar to “working around the country” was for students a generation earlier.

Strategic Issue #5 The footprint of research universities will enlarge to cover foreign governments, inter-governmental organizations and multinational corporations for services, research and education both abroad and at home.

As universities enlarge their responsibilities globally, they must ensure that their home bases understand the value of their global engagement. This understanding cannot be taken for granted.
Strategic Issue #6 Universities will create definite-term programs abroad, programs having a defined beginning, middle and end. Indefinite-term program commitments abroad will become unusual.

Global Driver 5. Expanding Access to Higher Education

Modernization, growth of the middle class, and growing technology-driven economies globally are driving growth in higher education in the developing and developed countries alike. The scale of the global demand for higher education is enormous and will drive the transformation of public higher education. President Obama has set a goal to boast the world’s highest graduation rate by 2025, which requires a 25% graduation rate increase.

Universities will be challenged to make adjustments in many sectors (students, faculty, programs, degrees, locations, facilities, methods, expectations) to satisfy the access-demand pressure. An increasing array of for-profit higher education models serving targeted student needs should be expected. Four year, two year, accelerated, on-line, in-person, mixed on-line and in-person, on-demand, self-paced, “degree credit for life skills,” and “two degrees for the price of one” plans, most offering student convenience and access, will become more common.

Network-access to courses given elsewhere and taken everywhere will be more utilized. Books, as we know them, will steadily be replaced by electronic media because their current cost, even for wealthy countries, is too high and probably not sustainable at scale.

The pressure for open enrollment will increase because the focus is moving to providing higher education opportunity for all ala k-12 education. Opportunities for subject matter certification will continue to expand including: certificates for training, professional (multi-disciplinary) master degree programs created for targeted interest groups, and flexible interdisciplinary constructs not leading to degrees. Programs delivered by a university partnership, possibly with non-university groups (like museums and research institutes), will be common.
Strategic Issue #7 Universities will focus on serving defined higher educational niches because of the expanding range of possible missions.

Strategic Issue #8 Demand driven student expansions will create significant budgetary, facility and student qualification challenges for public universities if significant supplemental public support is not provided.

This issue will less affect private universities because their missions do not necessarily respond to access demands.

Global Driver 6. Expanding Opportunities for Talent

As Sir Francis Bacon noted, “knowledge is power”, but in-demand knowledge today is especially powerful. Those possessing in-demand talents are in short supply and are eagerly recruited globally. While unemployment remains high, many employers cannot find the employees they seek. The globalization of people is driven by the demand for talent. Accelerating change necessitates dynamic, accessible and targeted programs to nurture a current workforce. Acquiring current skills is a governing rule for today’s workforce.

Nurturing talent through degree and certificate programs offered in a manner that serves student needs is a direction that Universities should follow.

Strategic Issue #9 Talent, especially in-demand talent, is the coin of the global realm and a long-term issue. Universities should ensure priority attention to nurturing this talent.

Strategic Issue #10 Universities should nurture global talent in leadership, management and “current skills” for professionals across disciplines through targeted degree and certificate programs.

Global Driver 7. Cost control
To state the obvious the total cost of U.S. higher education is high. With the national goal to increase the number of post-secondary education graduates to 55% of high school graduates, and with continuous education of the workforce expected to be the norm for high quality jobs and national competitiveness, the national cost for higher education at current rates becomes very high. Tuition flexibility is limited, and States can be expected to provide even less support per student as they expect more from their higher education systems. With increasing pressure for program access, maintaining program quality becomes the challenge. The ‘buck’ for cost and quality of higher education ultimately ‘stops’ at the public university because it provides the program and services.

Most ideas for cost control are not new but the high total cost of higher education may now make them more attractive. A few of them include: Using incentives to shorten the time to degree; using time to degree to better align educational costs and tuition fees; acquiring degree credits through different higher and lower cost educational centers; instituting classes of service with differential costs (like, flying coach class); allowing other educational experiences to be used for degree credit; and expanding use of differential costs by field of study or study formats.

**Strategic Issue #11 Generally, states, students, and universities share the responsibility for financing public higher education (along with significant federal support) but do so without a compact balancing their responsibilities and allowing for prediction of cost sharing even one year ahead. It’s cost sharing without agreement or predictability.**

**Global Driver 8. Innovation**

Innovation is widely touted as the answer to almost every “how will we . . . question?” How will we accelerate economic development, create affordable health care, improve sustainability and quality of life, and so on? The answer given is always “through innovation.”

An innovative culture requires strong leadership, embraces institutional agility, commits to high-value deliverables, values disparate talents, adapts to changing circumstances and responds to opportunities.
The world is hungry for innovation which universities, with support of government, are positioned to lead. Universities are natural centers for innovation. They gather talented people, engage in cutting-edge research, have large-scale information and computational systems, connect to local and global communities, engage in instruction and provide services, often with support of government and communities. Students start companies, and sometimes create entirely new lines of business, as occurred with Apple and Google. University services currently include entrepreneur’s residence halls, incubators for start-up companies, international incubators for foreign companies, access to angel and venture funders, technology licensing and commercialization professionals, intellectual property counsel, venture acceleration assistance, business plan counseling and competitions, venture mentors and consultants.

**Strategic Issue #12** Universities are now poised to create *university-wide* cultures of innovation that would extend beyond the campus to surrounding communities and beyond them even internationally. This is a major opportunity and challenge awaiting research universities.

**Global Driver 9. Great Global Problems**

The joining of national problems with the great global problems - such as environmental degradation and climate change – is a driver resulting from global connectivity. The National Academy of Engineering’s Grand Challenges have inspired universities across the country to make them a priority focus for education and research. Relief efforts and fund raising after natural disasters, like earthquakes and hurricanes, also reflect this global mega-trend.

No person, country, organization or university is untouched by these great global problem drivers. On the contrary, global connectedness has steeled our linkages to them.

**Strategic Issue #13** Universities will increasingly engage multi-disciplinary teams on great global problems. These teams are inspired by *Competitions*, such as the U.S. Department of Energy’s Solar Decathlon; by *Service Projects*, like those of Engineers Without Borders; by
Challenges, like the ‘Grand Challenges’ offered by the U.S. National Academy of Engineering; and by Prizes, like the million-dollar X-Prize for oil spill cleanup, or the more than 30 other major prizes found on www.ideaconnection.com.

These mechanisms of engagement are manifest exemplars of the growing interests of people for hands-on contribution to the great, and other societal problems.

C. NEXT GENERATION LEADERSHIP CHALLENGE

The challenge for university leadership is to create a vision for the coming decade that fulfills the university mission while responding to these global drivers and issues.

And while institutional responsibilities will vary from place to place, the large, public research universities will likely confront most of the aforementioned drivers and issues.

Shaping the university culture so that it can contribute and prosper under these world drivers is the most important and interesting responsibility for university leadership today.

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