



**HOPE, CHANGE, AND AFFIRMATION:
NEW VALUES TO GUIDE INSTITUTIONAL INNOVATION
IN AMERICAN HIGHER EDUCATION**

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While American colleges and universities retain their position of global leadership in discovery, innovation, and creativity, their capacity to adapt to rapidly accelerating change or even to conceive or guide their own internal institutional innovation remains astonishingly underdeveloped. Our institutions of higher education remain entrenched in the organizational structures and bureaucratic practices of the past, making the concept of “university innovation” an oxymoron. While our universities produce extraordinary human capital, most are terrible at objective institutional self-assessment and rethinking how they do what they do, so I thought I would spend some time putting the implications of this dilemma into context.

Along with many of you, I followed the presidential election closely and was compelled by the agenda and ideas articulated by Senator Barack Obama. It seems to me the framework he delineated is useful for considering the current state of affairs in American higher education. When we synthesize what he has had to say there are three fundamental concepts that he has put on the table in simple but eloquent terms. These three concepts are “hope,” “change,” and “affirmation”—the affirmation implicit in his formulation “yes, we can”—and I would recommend that we consider these inspiring values in the context of higher education.

The president-elect has used the word “hope” over and over again, and as he articulated new hope for the nation the assumption was implicit that the students of our nation could hope for access to higher education. Implicit within his conceptualization of hope was the suggestion that broad access to our great public universities should be possible, but those of us in this room understand that circumstances do not necessarily warrant such optimism. We realize that the graduation rates in public universities and the college-going rates in many communities are actually decreasing rather than increasing.

The perennial demands for “excellence” one hears in academia are certainly associated with hope, but these exhortations only serve to remind me that our leading institutions tend to be “exclusive”—predicated on exclusion to all but a few, generally from privileged socioeconomic backgrounds. The challenge of providing access to higher education for most Americans thus falls to our undeniably less competitive schools. For some reason conventional wisdom deems this bifurcation between institutions that pursue excellence and those that offer access both inevitable and acceptable. In American higher education excellence has traditionally been defined by a handful of leading institutions and there has been an obsessive tendency for all other universities to regard these few as prototypes. Public universities thus pin all of their hopes on becoming more and more like the University of Michigan, for example, and private institutions strive to become more and more like Columbia, where I formerly served as executive vice provost. Every university in the country envies these institutions, even unto their own demise.

Thus when the president-elect raises our hopes and expectations for broad access to higher education, those of us in the academy have to think very seriously about how we would meet the challenges he has outlined. We have to ask ourselves whether we are content to perpetuate the status quo or whether we are prepared to transcend the industrial model of replication that has served as the basis for access to higher education for the past forty or fifty years. What has happened to the notion of average citizens having access to the great public universities? Hope for such access still existed at the end of World War II when returning veterans could be admitted to the University of California at Berkeley with the B+ average they had earned in high school. That is how it used to work but that is not the way it works any longer.

A second fundamental concept advanced by President-elect Obama is “change.” While our universities have the potential to serve as transformational catalysts, when it comes to these institutions guiding their own adaptation to increasingly complex societal change, those of us in the higher education community have been asleep at the switch. In this respect we have characteristics in common with the American auto industry, which is about to experience the outcome of their own lack of innovation. We are a nation with a population of 305 million on track to increase to somewhere between 400 and 450 million within the planning horizons of many of our institutions. We are growing rapidly and diversifying even more rapidly and it should come as no surprise to hear that in order to attain competitive footing in the global knowledge economy the graduates we produce will require competitive skills. To attain some level of competitiveness our nation will require 75,000 to 100,000 new math teachers, for example, yet our capacity for institutional innovation is so faltering that we do not even know how we would accomplish this straightforward task.

We may even talk about change but in reality how many of our institutions could be described as hotbeds of change? How many constantly generate remarkable proposals

for innovation—new departments, new schools, new ways of learning, or new ways to use technology? What about proposals to advance completion of certain baccalaureate degree programs within two years? Maybe students could take three or four or five subjects at the same time and the skills of teachers could be continually updated throughout their careers. Maybe entire communities could be engaged in lifelong learning. There are isolated examples of such initiatives but let us accept the fact that universities are not institutions for which “change” is a watchword. I sometimes think that in order to fit in better on campus I ought to appear from time to time wearing a monk’s hood, chanting in some ancient dialect that no one understands.

The third fundamental concept that President-elect Obama has advanced is affirmation. His message to the nation, expressed with particular eloquence during the election night rally in Grant Park, is the affirmation that both as individuals and collectively as a nation we have the potential to move forward and take on any challenge. But consider for a moment how our institutions of higher education project themselves. Are we perceived by policymakers and the general public as a “can-do” group or as grumblers, complainers, and whiners whose only concern is what’s in it for me? While those of us in the academy participate in one of the most privileged communities to be found anywhere in society, do we inspire confidence in our potential to facilitate change? Yes, we can change? Yes, we can adapt? Yes, we can innovate? Yes, we can meet national challenges? Yes, we can move America forward again to a position of economic competitiveness, social progress, and opportunity for all?

As a countermeasure to the hidebound systemic entrenchment of American higher education, Arizona State University is conducting a large-scale experiment in institutional innovation. Through a decade-long top-to-bottom reconceptualization of our institution, we are pioneering the prototype for what we term the “New American University.” As the foundational model for this new type of American university, ASU integrates the concepts of excellence, access, and impact. If I am obsessed with anything it is to make certain that when we are done with restructuring the institution, a prototype will have been established that abolishes the arbitrary distinction between universities that pursue excellence and those that provide access. This attempt to recover the egalitarian values of the “true public university” has in common with the message of the president-elect the values of hope, change, and affirmation.

For ASU self-determination as the foundational model for the New American University has meant embracing fundamental change: we have confronted the complexities associated with advancing robust institutional innovation at scale. We took the bold step of asking ourselves how we might best combine excellence with access while through a focus on regional challenges seeking solutions to the problems that confront global society. While all public research universities must be inherently committed to teaching and discovery, there is no reason why each cannot advance unique and differentiated research and learning environments that address the needs of their

particular region. In our case this reconceptualized vision calls for inclusivity rather than exclusivity, an emphasis on outcomes rather than inputs, and a focus on our public duty.

Until quite recently Arizona was only relatively sparsely populated and thus it retains some of its frontier values and remains to this day only partially “finished.” The educational infrastructure of the state is certainly characterized by this lack of completion. In 1950 Phoenix had the same population as Santa Fe, New Mexico, while today the metropolitan region is home to 4.1 million. In the midst of such rapid social, economic, and political change, we find ourselves uniquely positioned both to transform the university and act as catalyst in the maturation and transformation of the region. We refuse to conform to the prototype of publicly financed institutions that operate like private universities and raise admissions standards ever higher each year in some theoretical verification of excellence. Instead our objective is to offer access to higher education to citizens of our country at every socioeconomic level and from every family background, no matter how they got to the United States. If there is to be hope there must be opportunities for access to higher education. If someone is ready to learn there must be someone ready to teach.

At ASU we are in a sense engaged in a genetic engineering project, modifying the institutional genetic code we inherited. While our foundational genetic material can be traced to Plato’s academy, two thousand four hundred years ago in the hills of central Athens, and the medieval European universities and the earliest German research universities and the elite colleges of colonial New England, it does not express who we need to be in response to our setting in contemporary Arizona. We embarked on our program of genetic engineering because we concluded that the genetic code we inherited was insufficient to remain relevant to our society in the scientifically and technologically advanced global knowledge economy of the twenty-first century.

When I first arrived at ASU I pulled open the drawers in my desk and searched for any instruction manuals telling me how to be president but could find only the following set of instructions: You cannot change anything. Do not ever tamper with the organization of the institution or attempt to deviate from its present trajectory. Do not introduce novel ideas or new pedagogy or attempt to transform the existing structure of academic departments. If you attempt to introduce change to the institution, you will be summarily executed by the faculty senate. As you can see, then, genetic engineering has to be undertaken very, very carefully.

An important dimension of our genetic engineering is the expression of our institutional values through what we term our “design aspirations.” We have altered and are in the process of altering our academic design core to encompass three key aspirations. The first calls for the institution to be “socially embedded.” For example, we specify that all research will be associated with a K-12 component. We provide curricular elements in

every classroom for the 1.2 million students in Arizona public schools, and we are reaching out in both English and Spanish to families by the tens of thousands across the state. Public engagement is such an integral dimension to our mission that we have launched 1,100 programs directly connected to the community involving over fifty thousand of our students, faculty, and staff.

“Academic enterprise” is a second design aspiration, and with this guideline we proudly proclaim the status of the institution as an entrepreneurial organization. We do not believe that entrepreneurship and entrepreneurial activities should be segregated from the academic world. Rather, we think that an entrepreneurial approach is imperative for those who seek to advance social, economic, and environmental enterprises. Accordingly, we now teach entrepreneurship to all 67,000 of our students. We have instituted a number of institutional policies and programs that promote entrepreneurship and facilitate moving ideas into action. One of our initiatives is called “University as Entrepreneur.” The overarching objective is perpetual institutional innovation. Toward this end we seek to inspire and enable both students and faculty members to innovate. In practice we actually generate new enterprises—whether for-profit startup companies or new ventures in research or education or useful new projects of any kind.

“Intellectual fusion” is our third key design aspiration. This guideline encourages teaching and research that transcends existing academic disciplines. Faculty members are encouraged to self-organize according to the intrinsic logic of their endeavor rather than to remain trapped in arbitrary social constructs. We fund great ideas and encourage movement in new directions with no shackles and no constraints. With the wisdom and insight and creativity that transdisciplinarity brings to our newly liberated faculty, during the past six years we have designed and launched thirteen new transdisciplinary schools, including the School of Human Evolution and Social Change, the School of Earth and Space Exploration, the School of Family and Social Dynamics, and the School of Sustainability, the first of its kind in the world.

Through unprecedented investment in students who might not otherwise hope to attend college we have largely succeeded in overcoming financial barriers to access. The current level of investment in undergraduates through scholarship and gift support is approaching \$100 million annually and for graduate students exceeds \$50 million. We have greatly expanded both our investments in general financial aid, and in specific programs designed to help low-income Arizona students attend and graduate. For students who meet all normal admissions standards and whose family income does not exceed \$25,000, we offer a program called ASU Advantage that provides tuition, fees, room, board, and books (via merit- and need-based grants and scholarships, and work-study). Although we expend university resources for programs like ASU Advantage and receive no support from the state, the success of our investment is self-evident: The number of students enrolled from families below the poverty line has risen by roughly

500 percent, a number we expect will continue to grow, and we have increased the number of Pell Grant recipients by one-third, from 9,200 to 12,300 recipients. ASU has succeeded in making average tuition costs for in-state students under \$2,500 per year once need-based or merit-based financial aid is applied for those students who qualify.

While financial obstacles can impede access for some students, our definition of access is broadly defined and also refers to intellectual access. Consistent with our design imperative that specifies a “focus on the individual,” intellectual access to us means that our admissions decisions are determined by our assessment of a potential student’s ability to do university level work, not by test scores from an SAT or ACT or some other arbitrary indicator. Because our objective is to provide the best possible education to the broadest possible spectrum of society, we admit students with differing indicators of intelligence and creativity and even differing levels of high school preparation. Our approach has been to expand the capacity of the institution to meet enrollment demand, and provide expanded educational opportunities to the many gifted and creative students who do not conform to a standard academic profile.

Consistent with our objective of creating differentiated learning environments that address the needs of individual students, we have designated one of our campuses, for example, to emerge as one of the nation’s leading polytechnics, with programs that provide both a theoretical and practical learning experience, preparing graduates for direct entry into the workforce. We are advancing two differentiated schools of engineering, one focused on research and the theoretical aspects of technology, and the other on practical application. Similarly, we have established three schools of education and three schools of management or business, each of which is built on a different learning platform. Across our restructured four campuses we observe equally high standards and levels of expectation and aspiration. We have eliminated hierarchization or “tiering” and do not observe a distinction between a “good” campus and lesser campuses. We have instituted a model with no campus-level governance except for deans responsible for the emergence of individualized learning environments.

Reconceptualization of a large public university as an academic enterprise requires an adjustment to academic clock speed. While my civilian wristwatch advances in increments of seconds, minutes, and hours because it measures time relative to the rotation of the earth, my academic wristwatch marks time in semesters. The academic watch may advance by five semesters while faculty groups argue about whether change is even possible. But we have accelerated the pace of our academic culture to move in synch with the needs of the world. The speed with which we now make and implement decisions and establish collaborative relationships with other academic institutions and with business and industry is characteristic of private enterprise. We specified to the faculty groups involved in the design process associated with the establishment of our thirteen new schools that each had one month to formulate the conceptualization, three months to deliberate about it, and one final month to finalize all decisions. We resolved

that if the process could not be accomplished in five months from start to finish, it would not be worth doing.

What are the indicators of success in our experiment in institutional innovation? In addition to the measures I have addressed thus far, a short list of accomplishments during the past six years would include the following: We have increased enrollment by more than nine thousand net new students and added five hundred new faculty members. While the freshman class has increased in size by 42 percent since 2002, enrollment of students of color has increased by 100 percent. We have attained record graduation and retention rates and all academic indicators similarly track record quality. We now enroll more freshman National Merit Scholars than almost any public university in the nation. More members of the National Academies have joined our faculty during the past six years than have served on the faculty during the past five decades. More than fifty new interdisciplinary research centers and institutes have been established. Seven million square feet of new academic space has been added, including one million square feet of world-class research infrastructure. We have developed a master plan to guide the build-out of our campuses and restructured the institution by clustering twenty-one colleges and schools by their academic focus on four campus venues distributed across the Valley.

Our metrics of success can be still further quantified: Research expenditures from federal, state, and private sources topped \$218 million during FY 2007. ASU is one of only a handful of major research universities without both an agricultural and medical school to have topped the \$200 million level. Peer institutions in this category include Caltech, MIT, and Princeton. According to the National Science Foundation, ASU is now among the top 20 leading research universities without a medical school. To provide some perspective on the momentum of our meteoric trajectory, ASU had absolutely no funded research in 1980. Yet today within this highly accessible institution are scholars and scientists capable of competing at the same research level as the faculty at Caltech.

Further, during this period the eight largest gifts in the history of the institution, including one of \$100 million and two of \$50 million, have been received. We have raised \$2 billion from multiple sources to advance our agenda, including \$233 million in a public referendum supported by the City of Phoenix to relocate three of our colleges into downtown Phoenix. We have received \$100 million from the City of Scottsdale for a new center for entrepreneurial technological innovation. Note that these latter two investments in the university come from municipalities and not from the state.

ASU is our nation's youngest major research institution as well as its largest university governed by a single administration. Based on demographic projections and in response to burgeoning enrollment demand, we plan to increase enrollment by another twenty thousand students during the next five years. Among the new faculty members we have

recruited are those from disciplines one would think would have nothing to do with our excellence-and-access model. Yet new faculty members tell me they are enthusiastic about being at ASU precisely because of what we are doing, what we stand for, and which students we are trying to reach. Yet despite this level of passion and the consistent up-tick in all of the indicators for quality that we track, a cabal of skeptics continues to express its conviction that our success is impossible. I can only attribute this lingering doubt to the failure of conventional thinking.

With this decade-long transformation we are attempting to compress the rate of normal genetic processes—the growth and maturation of our university—into a shorter duration. Our objective is to accomplish fifty years of change in ten. The redesign of our university represents a process of institutional innovation as focused and deliberate and precise as the actual process of innovation that takes place in the knowledge production of our scientists, engineers, and other scholars. Institutions of higher learning, like all organizations, are evolving entities. To the extent that they can adapt to a changing environment, or better yet, lead the change, they survive and flourish. Like other organizations they must also be wary of institutional inertia, the resistance to change that would almost certainly bring about their demise.

President-elect Obama has expressed his intent to provide \$4,000 in additional funding to students attending college. My question is where are these students going to attend school? Can you name the great new universities being built today in this nation? Where are the dozens of new state colleges currently undergoing expansion? In the context of preparing our society to meet the challenges and massive complexity of the future, we are not being sufficiently innovative. There are no doubt many isolated instances of small-scale innovation and many institutions that are taking incremental steps toward innovation, but as the sector collectively responsible for the advanced education of each successive generation, those of us responsible have yet to rise to this challenge. There is not a moment to lose because as it turns out, while President-elect Obama is taking office we have ongoing problems competing for attention. Just a couple of economic issues here and there, like a few hundred thousand jobs in the auto industry that is about to tank and rising competition from other parts of the world where robust investment in higher education infrastructure is driving innovation at an astonishing pace. American higher education cannot assume that its competitive position in the world is unassailable. If we are to be of service we must begin to perceive innovation as perpetual because perpetual innovation is what will be required, both in terms of the advancement of knowledge itself and the advancement of our institutions of higher education.