When most educated Americans think of our great universities, the don’t think that the laser, FM radio, the algorithm for Google, the fetal monitor, the Richter scale, scientific agriculture, cures for childhood leukemia, methods of surveying public opinion, the concept of human capital or the self-fulfilling prophecy all had their origins at the great American research university. When they think about universities, if they do at all, they think in terms of undergraduate or professional education. They focus on the mission of transmitting knowledge rather than the creation of new knowledge. While this is understandable, the quality of undergraduate education is not what has made the American research university the greatest in the world. In fact, it is the production of new knowledge through discoveries that have changed our lives and the world that has catapulted American universities to their current distinguished position among world universities.

In fact, the great American universities dominate the set of the best: 80 percent of the top 20; 70 percent of the top 50; and about 60 percent of the top 100. Since W.W. II, American universities have won far and away the most Nobel Prizes in the sciences, and they continue to dominate the set of more influential and highly references publications in almost all academic disciplines. All of this distinction has been achieved in the past 70 years. This talk discusses the forces that during the early decades of the 20th century produced preeminent American universities – ones that still represent the engine of innovation in our society and that are the envy of the world. American higher education is probably the only industry that has a favorable balance of world trade. The best students and scholars want to be students or teach at these universities.

This remarkable historical achievement had its roots in the values of the academy that mirrored the changing values in American society. Values such as meritocracy, organized skepticism, open communication of idea, free inquiry and academic freedom, and the use of the peer review system represented the foundation on which structures were built that produced extraordinary discoveries, inventions, idea, and new systems. When these core values, which were in place by the early 1930, were combined with the great intellectual migration of world class scholars from Europe that resulted from Hitler’s rise to power, with enlightened and bold leadership, with fierce competition within the system to be the best, with
autonomy from the State, with an openness to recruiting talent from any place in the world, and with a remarkably prescient and creative post World War II science policy that infused universities with tax payer dollars and made universities the beneficiaries of this largess, then a truly distinguished system was built.

We are faced, nonetheless, with a paradox that I described and elaborate upon in the talk. We have the greatest universities in the world. We are kings of the mountain. These universities are the engines of innovation and they provide avenues for upward social mobility. They improve the national stock of human capital and they continue to attract the world’s best scientists and scholars who come to study and teach at these great seats of higher learning.

Yet we have a sense of a system of higher learning – even at the top – that is deeply challenged and troubled, if not in crisis. We can enumerate a lengthy list of problems and challenges, which I do in the talk; we see the potential for decline in one of the nation’s jewels. If we’re so good, why do we feel so bad, and why is there a growing belief that our system of higher learning is at risk of becoming overly rigid, resistant to change, subject to external constraints, increasingly ossified, subject to the erosion of key values, and therefore increasingly incapable of fulfilling its part of the compact with the nation?

In the talk, I discuss a variety of challenges. External to the university is the challenge from abroad. I make the case that we should not only not fear foreign competition, but we should instead welcome it, since a larger set of great research universities will lead to a more rapid growth in knowledge and the solving of critical national and international problems – from medicine to sustainable development. And it will provide productive competition for American universities.

In the talk, I argued, “that the enemy is us.” We could be the source of our own relative decline. I identify, among others, the following threats that America’s great universities face: the assault on Academic freedom and free inquiry by the United States government (or the rise once again of anti-intellectualism in American society); the effects of features of anti-terrorism legislation on the conduct of leading-edge research that is desperately needed to combat disease and that could help national security; restrictive visa policies; the efforts to limit scientific publication by politicians; the increased surveillance of students and faculty members; efforts to impose ideological positions onto scientific and behavioral science research by the government; the dysfunctional aspects to current American science policy; the risks attendant to the growth of university control of intellectual property and the tendency toward commercialization of the university; the need for structural changes to release constrained intellectual energy (that will require rethinking the structure of our universities); the growing inequality in wealth among even the best universities; and the disinvestment in higher education, particularly among the state governments in the United States.
Finally, my talk focuses on the future and what we will need to do for ourselves to solve the threats that we face. That is the subject of my new book on what the great research university *should* look like 25 or 30 years from now. The talk in London provided a very brief sense of what I believe will need to be done to overcome the inevitable inertia among the great universities; what will need to be done to reach the full potential of these universities; and what will need to be done for them to reach their full potential in an age where knowledge will determine power and influence in the world.