From the first stirrings of higher learning in the colony of Massachusetts in 1636, through the announcement of the Western Governors "virtual" University three and a half centuries later, Americans have been staunchly dedicated to higher education as a major force in our society.

A college degree has been the sine qua non for the maturation of the young members of elite families in the United State, and the most significant path to upward mobility for everyone else. The campuses of American colleges and universities have shaped culture, art and entertainment in many small cities, and yet provided semi-cloistered environments for the passage to adulthood for many generations of undergraduate students.

There are today more than 3700 institutions of higher learning in the United States, and more than 60 per cent of high school graduates take advantage of some form of higher education.(1) The institutions that provide this training include major research universities, large state-sponsored comprehensive universities, highly selective liberal arts colleges, community colleges, church-related institutions, technical colleges, arts colleges, proprietary institutions. This bewildering variety of institutions is the product of American entrepreneurial ingenuity, dedication to religious principles, experimental zeal, commercial savvy, and commitment to providing access for everyone who wants to learn.

In this address, I will provide a rapid overview of the development of higher education in the United States, and then hazard some guesses about what the next generation of institutions will be like.(2)

I will touch on four themes: first, the theme of access -- who should be educated?

Next, the related theme of purpose: for what do we educate? What are our institutions trying to accomplish?
Third, educated by whom?

And finally, where does this education take place?

These are my major themes, and to develop them, I will begin in the early part of the 17th century, when refugees from the British Isles founded institutions of higher learning patterned closely on those they had left behind.

I. The early American college system

In the first decades of the North American colonies, amidst the muddy commons and frame buildings that defined civilization on the edge of a vast new continent, schools and colleges were regarded, as historian Martin Trow describes it, as "forces for survival in a hostile environment,... instruments for staving off ... the threatened decline into the savagery of the surrounding forest and its Indian inhabitants."(3)

Colleges were founded to educate leaders for the colonies -- preachers, teachers, lawyers. Colonial authorities granted the new colleges the power to award degrees within their own territories, and like their British counterparts, these governments attempted to prevent the establishment of rival institutions so as to guarantee doctrinal orthodoxy and service to established society. Harvard College in Massachusetts, and William and Mary, in Virginia, were founded with deliberate reference to the models of Oxford and Cambridge.

Higher education was provided in a residential campus setting, where groups of scholars gathered to teach and to learn. The curriculum focused on liberal learning for undergraduates, including the classics, philosophy, mathematics, history, natural history and theology, a regimen which was seen as the best general preparation for a useful professional life. Libraries were an important part of the new foundations, and faculty responsibility for disciplining students extended to many aspects of life outside the classroom. As in Britain, and in contrast with medieval Italian universities, students had relatively little power to determine what they were taught or by whom.(4)

The influence of these institutions extended beyond the immediate campus both in providing an awareness of cultural matters in the surrounding community, and in creating tensions between "town" and "gown" around student behavior. The presence of several prominent institutions in the various colonies created a sense of ownership in each different territory, but also militated against founding a single national university. Sporadic attempts to create such an institution, like parallel attempts to found a national central bank, foundered on the strong sense of identification with each of the individual colonies.

As was the case in Britain at that time, it was taken for granted that these foundations would provide higher learning to white males of the propertied classes, primarily those who adhered to the Protestant faith. Dartmouth College, in New Hampshire, was established just before the Revolution in order to educate Indians along with "English Youth." But higher education for young women, for slaves or indentured servants, was virtually unknown, except as provided in rare individual cases by enlightened fathers or masters. The few American Jews could be educated only
by assimilating into the surrounding society.

Even in these early years, however, some aspects of the colonial system diverged from the British model. Responsibility for governance of the colleges was placed in a president and a governing board comprised of local citizens, usually including both clerical and lay members. Such a board, of trustees or regents or overseers, was a distinctive innovation in colonial colleges, designed to assure that graduates of the new institutions would be trained in godliness, morality and devotion to the public good. The innovation took root, and continues to distinguish our institutions; more than 40,000 citizens now serve in a purely voluntary capacity as members of such governing boards in virtually every institution of higher learning in America today.(5)

The role of the president in colonial times was particularly unlike anything that had evolved in Britain or on the continent of Europe. The president, in these early years, was responsible for all aspects of the administration of the college. He was the senior (and sometimes the only) member of the faculty, the college chaplain, and advocate for his institution with the local community.(6)

The prominent role of the president stood in marked contrast to the old world system in which the teaching fellows elected the master and were responsible as a body for the day to day governance of the institution. At first, this was because there was no indigenous guild of scholars in the colonies. Even as such scholarly communities were created, however, the American system continued to lodge considerable power in the president. Combined with, but also limited by, the powers of the external governing boards, the power of the president gave opportunities for innovation and visionary leadership.

In the late 18th and early 19th centuries, all of these principles remained constant in the new institutions created in new territories and states. The influence of the nine original colleges in the old colonies remained strong in these new foundations. However, as more and more colleges and universities were founded, new models and experimental ideas began to flourish across this vast continent.

II. The development of higher education in the nineteenth century

The number of institutions of higher education in America grew exponentially between the Revolution and the middle of the 19th century. As the citizens of the United States moved westward in a search for open land and new opportunity, they carried with them faith in the power of education as a civilizing force and prerequisite to republican government. Alexis de Tocqueville named the education of the people as one of the prominent causal factors in the success of democratic institutions in the republic growing up on American soil. He vividly described these frontier families, carrying with them their Bibles and a few precious books, hungry for news and conversation in their rude huts carved out of the vast wilderness.(7)

Many of the institutions established in the first part of the nineteenth century were founded by religious groups -- Methodists, Quakers, Baptists, Presbyterians. It was easy for such institutions to receive charters from the governments of new states and territories eager to provide the structures for civilized life. Some of these colleges took root and have survived into the present day.
Hundreds of others fell by the wayside, lacking the essential support of their communities or the appeal to any long-term constituency.

Not only were new institutions founded in the western territories; establishments were founded to serve new publics, including Catholics, Jews, urban workers and former slaves. Beginning just after the Civil War, there was a particularly strong movement to provide higher education for women. This was, even for an innovative society, an especially revolutionary step.

When the first colleges for women were founded in the United States in the mid-nineteenth century, they were designed with great care, both in the curriculum and in the physical attributes of the campuses. The course of study was established with the particular needs and desires of women in mind, as these needs and desires were then understood. So were the layout of the buildings, the graceful landscaping, the height of the stairs, even the pattern of the china in the dining room. One of the most important results of this development was a cadre of women scholars prepared to teach and to administer institutions.

At Bryn Mawr College in Pennsylvania in the 1880s, women were for the first time trained exactly like young men, and for the same reasons: to become educated persons, professionally active in law or medicine or scholarship, advancing the boundaries of learning. Over time, co-education -- the idea that women and men should be educated in the same way, by the same faculty, in the same classrooms -- became more and more the accepted pattern in the United States. Newly founded institutions such as Stanford University or the University of Chicago towards the end of the century adopted this practice, decades before this ideal took root anywhere else in the world. Trinity College, the precursor of my own university, was instructed by our major benefactor in 1896 to offer education to young women on the same terms as young men, as a condition for his benefaction.

Colleges were also founded for free Negroes and former slaves. As with the women's colleges, many of these institutions disappeared when integration, like co-education, began to provide new opportunities for Americans of African descent. However, as with women's colleges, a robust set of historically Black colleges and universities in America continues even today to provide an attractive alternative to historically white, co-educational institutions. This is one of the many dimensions along which American higher education flourishes because of our diversity.

Along with education for women and Blacks, three other very significant steps shaped American higher education in the last third of the 19th century. The first was the Morrill Act of 1862, through which Congress created the new category of land grant universities. The second was the establishment in 1876 of The Johns Hopkins University in Baltimore, Maryland, on the model of the German university. The third was the considerable infusion of both public and private wealth into colleges and universities across the country.

The Morrill Act provided funding, in the form of grants to the states of large areas of federal land equivalent to the whole of Switzerland or the Netherlands, to support colleges and universities.(8) Colleges created or strengthened by these grants were to include instruction in practical subjects
such as engineering, agriculture and the mechanical arts, along with other more traditional subjects. In some states, existing institutions benefited by the funds made available from sale of these lands. In others, new institutions were created especially for these purposes. They were installed on campuses that closely copied all the traditional features that had been developed in the older establishments in New England.

The emphasis on practicality in these land-grant institutions provided the stimulus for research and development in areas which had hitherto not been regarded as subjects for scholarly study and deliberation. This gave a new dimension to purposes of education in our country, and proved very influential in the development of public attitudes towards colleges and universities. There was a growing sense that universities ought to serve socially useful purposes in very pragmatic ways, rather than being isolated "ivory towers."

This attitude extended as well to the belief that universities should provide education widely, for all interested citizens, rather than only those destined to pursue traditional professions such as teaching or law. As Ezra Cornell's land-grant institution in Ithaca, New York, expressed it in the university register of 1869-70, Cornell aspired to be "an institution where any person can find instruction in any study."(9)

At the same time that the provisions of the Morrill Act were pushing institutions of higher learning in America in a more practical, service-oriented direction, the influential model developed by Johns Hopkins provided an impetus for development in the opposite direction: towards the German model of the university as the home of "pure science," the locus of lofty and abstruse research and specialized graduate training. This ideal had an immense influence in America in a very short time; it seemed as though a university could not be a serious place of learning unless it provided graduate training and encouraged specialized research by its faculty and students.

Established universities such as Harvard and Yale, and new institutions such as Stanford or Chicago, adapted the Johns Hopkins/Germanic model by grafting it onto the traditional undergraduate liberal arts training provided by a collegiate structure within the larger university context. And thus was born this distinctively American institution, the "research university" dedicated to excellence in both undergraduate and graduate education.

Many of the institutions I have been describing became strong through generous support from private fortunes. Families such as the Stanfords, Rockefellers, Hopkines, Dukes and many others were persuaded to invest substantial amounts of their new wealth in higher education. This created a very strong foundation of private financial support for higher education in this country, a foundation that has continued unabated to the present day.

Certain states such as Michigan, North Carolina or Wisconsin also determined to invest significantly in the development of their state universities. Citizens of these states took pride in the prominence of these institutions and supported their activities through taxation. Thus was established a tradition of strong public support for higher education several key states, states which set the educational standards for, and raise the aspirations of, other parts of the country.
Many of these universities, both public and private, began to reach out deliberately beyond the borders of the United States to attract students from abroad, especially from Asian countries to which American denominations had sent Christian missionaries. For the first time, in the last decades of the 19th century, American higher education became a net importer of students, since the growing strength of our institutions meant that fewer and fewer students went to Britain or to Europe for professional training or "polish," and more and more students from other parts of the world came to the United States to study all kinds of subjects, both practical and highly specialized.

The last third of the nineteenth century was thus a rich period for development of higher education in the United States. It provided considerable scope for strong leadership by vigorous and visionary presidents such as Andrew Dickson White at Cornell, Charles W. Eliot at Harvard, Daniel Coit Gilman at Hopkins, and M. Carey Thomas at Bryn Mawr.(10) At the same time, however, the growing size and complexity of institutions of higher learning meant that the presidents could no longer exercise individual dominance in the daily operations of the college or university. Administrative structures such as deanships and other offices were created to take care of these needs.

This same period also saw the beginnings of a much stronger sense of professional orientation by faculty members, with the emergence of disciplinary consciousness and disciplinary organizations in the social sciences, especially, at the turn of the century, and a growing sense of guild solidarity among scholars in the universities that prized specialized scholarship. This mentality also laid the groundwork for challenges to presidential leadership, creating a formidable alternative source of institutional authority that would become highly developed in the first half of the twentieth century.

III. The twentieth century

In the first decades of the new century, educational opportunities were once more offered to new populations. The City College of New York, founded in the nineteenth century to "educate the whole people," became a beacon for waves of immigrants to the US in these years. Poor young men flocked to CCNY for an excellent education offered at a very low cost, without many of the amenities of a traditional campus, but with the extraordinary advantage of a superb faculty drawn in part from the swelling ranks of European refugees.

"Commuter campuses" were established in other cities, appealing to the upwardly mobile urban working classes. Even in these novel institutions, however, almost all the undergraduate students were of the traditional age, between 18 and 22 years.

This traditional ordering by age changed rapidly after the second world war. Among the most important stimuli for this development was the GI Bill, the Servicemen's Readjustment Act of 1944. This bill was designed to make a college education affordable and accessible for the generation that had fought the war. Veterans could use their federally-provided tuition stipends at any college or university that would accept them, and there were no governmental stipulations about how training should be provided, nor were there efforts to establish standards or monitor...
performance.

The GI Bill changed both the sense of who would go to college, and at what age a college education might be sought, in the United States. It is now common for both men and women past their mid-twenties to seek a college education, or to return to complete one interrupted for military service or for family or financial reasons.

The 1950s and 1960s were a period of significant expansion for higher education around the world, and the US was no exception. New four-year colleges and universities were established across the country. Community colleges -- two year colleges designed to provide relatively practical education in vocational skills with a component of the liberal arts as well -- grew up in virtually every city of any size. Over time, the community college system has become a very successful new component of our educational establishment, providing adult education, non-degree programs, and opportunities for re-tooling and re-training for hundreds of thousands of Americans.

Another post-war development of great significance was the entry of the federal government into sponsorship of scientific research on university campuses in a major way. The US Office of Scientific Research and Development under the leadership of Vannevar Bush during the war laid the foundations for continuing significant collaboration between the government and research universities in advancing basic scientific discoveries in all fields. The National Scientific Foundation, National Institutes of Health, and several departments of the government, including defense, energy and agriculture, have provided billions of dollars of research funding for campuses around the country.

A third major step was taken by the US government with the passage of the Education Act in 1972. This Act codified the promise of government aid to all kinds of needy students in the United States, especially those at the baccalaureate level. It is especially significant that the financial aid funds made available by the government, through both grants and loans, were made to the students and their families, not provided as block grants to institutions. The funds are administered by the colleges the students attend, but the money is provided for the student, not the institution. Once again, the federal government followed a path of self-denial; instead of using major grant funding for student aid as a potential lever to influence the policies and behaviors of colleges and universities, here, as in the Morrill Act and the GI Bill, the money was made available without strings attached.

With the growth of federal funding, the line between public and private institutions in the United States began to be blurred. "Private" institutions depend more and more on government support for both research and student aid, as well as for tax-exempt loans for major building projects. At the same time, "public" institutions have sought to become more flexible in their financial bases by reaching out to private donors, and some state universities, including Michigan, Virginia, and Texas, have very substantial endowments.

American higher education is highly competitive: for students, for faculty members, for funding sources. It has always been market-driven rather than ordered by political fiat. In many ways, this has been healthy. As traditional sources of funding have come under pressure, however,
institutions have begun to search for new markets. With lucrative new forms of non-degree, professional and mid-career education being developed, more and more institutions are becoming "full service" organizations.

Many universities today provide all kinds of education -- from remedial education for admitted baccalaureate students whose high-school preparations are sub-standard, through a full range of professional and graduate training, extension programs offering non-degree courses to senior citizens, and executive education programs targeted at corporations or newly chosen governmental officials. As a result, our universities (and to some extent, even the four-year colleges) are becoming less clear in their sense of mission, and less differentiated from one another and from the community colleges and technical institutes. At the same time, the burgeoning of knowledge in every field, and the increasing specialization of faculty members in the various disciplines, has meant a blurring of the earlier clarity about what should be taught in any course of study, especially for the baccalaureate degree.

These developments mean that the answer to the question "what is being taught?" in American higher education is increasingly complex and even opaque. This lack of clarity about our purposes, along with the dramatically increasing costs of higher education over the past few decades, has led to a new level of public scrutiny directed at colleges and universities.

This scrutiny comes in two, related forms. First of all, more and more anxious parents are concerned about whether they will be able to afford a college education for their children. They are convinced that this education is the necessary ticket to a good life in America, and want to make sure that the education is worth the money they expend. The mentality of the American public has shifted from a somewhat awed pride in our colleges and universities to a clearly consumerist mentality. We are being asked to justify the market value of what we do, and there is increasing interest in for-profit institutions such as the University of Phoenix, which provide an education targeted specifically to the career-development needs of adult students.

In such a context, the traditional liberal arts education is often regarded as unworldly and unlikely to prepare anybody to do anything that earns a salary. This view is exacerbated by the public perception that scholars of history, literature and the arts have become dabblers in arcane, politically radical nihilism. This perception is exaggerated and unfair, but in a world of deconstruction and post-everything, it is hard to explain to ordinary folks what the intellectual excitement is all about. Professional education fares better, but here we face increasing competition from educational programs designed by and for corporations to accomplish their own specific goals.

Political leaders in both state and federal governments reflect these public concerns, and thus, for the first time in American history, over the past two decades governments have developed a taste for monitoring and to some extent, controlling, activities on campus: requiring evidence of acceptable outcomes in education, imposing complex regulations governing the use of funds for certain purposes, and using the power of the purse to influence or require institutions to pay more attention to gender equity, access for the disabled, particular types of research activities, and other social goals.
In some states, such as California, Texas, Maryland and Michigan, there are now movements to decide who can be admitted to institutions of higher learning, in order to neutralize university efforts developed over decades to diversify the student body by providing some degree of preference to black and Hispanic students. Thus, for the first time, the steady tide of increasing openness and accessibility for students from all kinds of backgrounds that has marked American higher education for almost two centuries is threatened with reversal by governmental action.

In other states, there is discussion of limiting or abolishing tenure for faculty members, or setting rules about how much time faculty members must spend in the classroom. There are rumblings about setting limits on how much private universities can charge, and pressures to keep tuition at public universities as low as possible. And at the federal level, the current suspicion of the humanities and the arts has led to dramatic reductions in funding of university activities in these areas.

Such activities are hardly unfamiliar in Europe, but they create a significant set of dilemmas for us in the years ahead. The traditional independence of American colleges and universities, governed by their presidents, faculties, and lay boards of regents or trustees, is now being challenged in novel ways by state and federal governments, by the courts, and by the students and families who pay our bills.

And at the same time, the most dramatic development of all -- the introduction of information technology into the classroom -- is changing the landscape of higher education in our country more rapidly than any factor in the past has ever done.

**IV. What lies ahead?**

Futurists delight in propounding radically new scenarios for higher education in the 21st century, based in large part on the wondrous capacities of information technology to provide education to anyone, anywhere, at any time. Some are convinced that most traditional institutions of higher learning, in America and elsewhere, will cease to exist within a few decades, swallowed up by more efficient competitors or rendered obsolete by the world-wide web.

Let me venture my own predictions under the headings of the four themes I have pursued throughout. Who will be educated in America in the year 2025? What will they be learning, and from whom? And where will this education take place?

It seems likely that in the 21st century, higher education will, for more and more Americans, become a continuum across the life-span, instead of a punctuation point that marks the rite of passage to adulthood.

With the broad access to many different kinds of educational programs made possible by computers, education will also become much less expensive for the consumer, even though the initial start-up costs for the programs will remain significant for the providers. This will sustain the
trend towards more and more accessibility, and more and more participation, over time.

Higher education will become more practical, more focused on providing the training people need in order to get a job, pass the bar, become a CPA or a Ph.D., qualify for a medical residency requirement. The current tendency to provide courses of study closely tied to the needs of corporate employers, in which outcomes are easily assessed and demonstrated, will surely continue.

The concept of a general education will surely suffer, especially as part of the background preparation for a successful career in any field. Both the growing pressures for practicality in education, and the increasing difficulty of deciding exactly what a well-educated Bachelor of Arts should learn, conduce to this end. But the gifted amateur will not become extinct. Adults may expect to explore geography or geology, music or art appreciation, ethics or Shakespeare or Italian, through technology and continuing education. More and more, education will be provided through extension programs, retirement communities, book groups, arts councils, museums, which are flourishing in all parts of our country.

Thus more and more people will be educated in the decades ahead, and they will be learning a great variety of materials and subjects, at different points in their lives and their careers. What about my two other questions: who will do the educating? And where will the education be provided?

American higher education today is populated by a bewildering variety of what might be called, ungraciously, "knowledge providers." The tenure track faculty still decide what should be taught, and do most of the teaching, in research universities and the selective liberal arts colleges. In many other types of institutions, however, these faculty members are outnumbered by a varied and growing corps of part-time faculty members hired to teach a particular course, sometimes known as "gypsy scholars," as well as graduate teaching assistants, adjunct faculty members who combine teaching with a continuing professional career in another field, contract workers and even software specialists.

Such developments might seem to place increased power in the hands of administrators rather than faculty members -- those who can control the hiring, the marketing, the conditions of performance. Yet administrators are pressed to provide more flexible curricula, to be responsive to changing demands by consumers, to price our products -- i.e., the courses offered by the institution -- in a competitive fashion. Not surprisingly, this has led to growing tensions on many campuses and an increasingly unionist mentality on the part of those who teach.

And faculty members, especially those in high-profile institutions who are renowned for their skills as teachers and specialists, hold some trump cards that may shift the balance in the direction of faculty power.(11) The central administration can only facilitate or impede, not control, the imaginative exploration of new forms of teaching and learning. And as sophisticated instructional technology makes it easier for good teachers to film lectures and design courseware, the skills of good teaching and imaginative new forms of mass presentation become more and more marketable. Potential providers of mass education through licensing software sense a very lucrative
new opportunity here, buying the skills of faculty members and using their sales forces and networks to make education ever more widely available and consumer focused.

One can envision a situation where faculty members join, as medieval companies of scholars did, to offer their services to all comers -- but this time, through proprietary courses packaged as videos, as CD Roms, and over the World Wide Web, or its successors. No need for student services administrators, for admissions officers, presidents, deans or boards of trustees, to make this kind of education possible.

Such a prospect raises immediate and thorny issues of accreditation, marketing and quality control; it also offers exciting opportunities for many more people to learn from skilled teachers and accomplished scholars.

Where will all this education take place? Institutions of higher learning in our country have been closely tied to particular spaces. This has led to the identification of members of the faculty, student body and alumni with particular communities of scholars and learners. What happens when education is provided by new information technologies, over long distances, in unconventional commercial settings? Is it not inevitable that traditional campuses will disappear?

It seems very likely that many traditional campuses will indeed disappear, and in short order. Others, I believe, will find that the decades ahead offer some attractive new ways of building on their traditional advantages. To do so, however, they must be quite clear about their missions and advantages, and prove appropriately nimble and visionary in responding to new opportunities.

V. The future of elite higher education

Robert Zemsky and William Massy of Stanford University distinguish three broad types of institutions of higher education in America today: "brand name," "mass provider," and "convenience" institutions. In the future, it seems clear that "mass provider" institutions -- including many of the state universities, land-grant institutions, and four year colleges, will be severely pressed by the new low-cost "convenience" institutions, which appeal mostly to adult learners, are flexible in their offerings, and rely heavily on the internet and multi-media communication. Observers in the UK are already familiar with good examples of such institutions, including the very successful Open University. In order to survive, traditional "mass provider" institutions will surely need to adopt some of these same techniques used by their "convenient" competitors.

It is less clear, however, that "brand name" or elite institutions in America will be deeply threatened by the new "convenience" institutions. The distinctiveness of institutions such as Stanford, Yale, Duke or Princeton lies not only in prestigious names, long track records or comparative financial stability, but also in our goals.

Martin Trow offered a definition of these goals 20 years ago that remains helpful today. In this account, elite higher education:
- seeks to socialize students, not merely train or inform them; "that is, it tries to shape qualities of mind and feeling, attitudes and social character."

- "is carried on through a relatively close and prolonged relationship between teacher and student, and depends on the creation and survival of milieux, of social and physical settings, within which that kind of relationship and exist."

- and finally, although the specific content of the curriculum in elite institutions varies widely, this type of education tries to convey to students "that they can accomplish large and important things in the world, that they can make important discoveries, lead great institutions, influence their laws and government..."(13)

Trow distinguishes elite education, in this sense, from mass education, designed to transmit skills and knowledge through a relatively "fleeting and impersonal" relationship between teacher and student, through a commitment to "adding value" and satisfying more concrete and direct educational goals.

Elite education is closely associated with particular campus settings, dependent on a complex and very expensive form of instruction, aspiring to a transformational, holistic education experience. Each of these features runs directly athwart to the mass-market, consumer oriented, low-cost distance learning trends I have described above. Yet all the elements in Trow's summary retain immense appeal to potential students and their families. The proven market value of a brand-name education is only part of this appeal. There is also the appeal of the experience itself, an experience that can never be fully replicated through a "virtual" substitute.

On this basis, I am confident that, for the foreseeable future, there will be a steady market for the richly varied and intensive undergraduate education that a small number of places like Duke provide, as a rite of passage for young American adults. The problem will not be filling our classrooms and residence halls, but making sure that we can include within those classes young women and men of all kinds of backgrounds, including those who cannot afford to pay the costs of this expensive and intensive training. For such students and their families, the appeal of a much less expensive, much more convenient baccalaureate degree will surely be great, particularly if the market shifts and potential employers look at competencies and outcomes, rather than relying so heavily on brand-name degrees.

It is here that we are most vulnerable, and here that we must redouble our commitments to using our resources to assure accessibility, so that we do not become havens for the "elite" defined by wealth rather than intellectual capacity. That would mean reversing the centuries-long tendency in America towards greater accessibility in higher education, regressing towards the original status of such education as available only to the privileged.

In doctoral training, the head start enjoyed by "brand name" universities in the pooling of academic talent will prove a significant advantage. Even if fewer and fewer students seek Ph.Ds in order to teach in conventional universities, the need to prepare scholar/teachers to work in various disciplines and contribute to burgeoning fields of interdisciplinary research will not evaporate. Our
graduate schools will need to adapt to make sure that we replicate not only our tenure track faculty members but also young people trained imaginatively to teach or do research in a variety of settings, and the funding for the training we provide may have to be recrafted. But the major research universities will continue to attract students who wish to be trained as researchers and scholars in every field.

The competition becomes more intense in professional training -- the production of JDs, MDs or MBAs. Here, the experience of "socialization" seems less pertinent than in undergraduate education; yet many observers would say that instilling ethical standards and building character through professional education is crucial to the future of medicine, law and business. One of the distinctive advantages of professional training in the elite universities is to build aspirational confidence, to instill the expectation that one can accomplish great ends; and the networking advantages of brand-name degrees show no signs of being eroded.

It is true that the need for close relationships between faculty and students might seem much less relevant in professional training than in undergraduate or doctoral education. Surely distance learning can excel in providing whatever professional students need, at their own desks and firesides, without the expense and inconvenience of commuting to, or the income foregone in enrolling full-time and becoming resident on, a campus.

Yet even here, there are clearly some distinct advantages in close interaction between faculty and students, making "interactive learning" more than the exchange of email or the creation of a virtual "chat room." Our best hope is to provide imaginative combinations of close personal interaction and sophisticated information technologies, which make it possible for people already launched upon their careers to obtain professional training and degrees without leaving their jobs or being away from home for more than manageable periods. And on this score, institutions such as Duke have already proven to be considerably bolder and more nimble in converting significant challenges into rich new opportunities than one might have thought probable even a few years ago.

For example, candidates for our Global Executive MBA do not have to give up their jobs or leave their homes for more than two weeks at a time. They spend several brief but intensive periods together with classmates and faculty members in locations deliberately chosen to maximize the "global" features of their education; but most of their education is provided through distance learning across the continents. The time spent together in four two-week periods over eighteen months is immensely important to the success of the program. Having some significant "face time" makes it much easier to bond in cyberspace, to enter into "virtual" discussions that have the flavor of the real thing. Rather than communicating with disembodied, impersonal email addresses, the students and faculty in GEMBA know each other well, and communicate as friends and colleagues, during their several ten-week stints apart. And the "distance learning" they enjoy is carefully crafted by our best faculty members, investing a great deal of time and energy in creating "virtual classrooms" and adapting their best material to these new uses. There is nothing here that smacks of "mass distribution" or mail-order degrees.

Using this kind of model, alone or in collaboration with other institutions, I believe that elite institutions in the United States will not only survive but flourish in the years ahead. The evocative
and intensive importance of the campus, as a particular place, may be diminished, but will not disappear. The community of scholars may be modified, but need not be abandoned. These are the benefits and attributes that "virtual universities" try to create through chat rooms in cyberspace; they will never quite match the advantages of the real thing.

Nonetheless, we surely cannot afford to be complacent, since the "real thing" needs to compete in the same ballpark with much less expensive, much more easily accessible, forms of education. We need to be quite conscious of our costs, yet also concentrate on adding value, maximizing our particular advantages, in order to persuade potential customers that brand-name education is worth the price we charge.

**Conclusion**

In closing, let me briefly address the place of American universities in the global framework of higher education.

American higher education today is spectacularly successful in attracting students from around the world; there are approximately 450,000 students from other countries on our campuses. Many of our students and faculty members also study and do research abroad, and quite a few institutions have taken serious steps to make our curricula more truly international in their focus.

Nonetheless, just as citizens of the United States have a recurrent tendency to isolationism and xenophobia, American higher education is in some ways quite parochial. Our students and faculty members are often ignorant of what is happening in other countries, compared to our counterparts in other systems. Since English is the dominant language of international scholarship -- a dominance reinforced by the fact that it is also becoming the *lingua franca* of the internet -- there is little incentive for American scholars to learn other languages. Because American scholarship is generally recognized as pre-eminent in many fields, there is little incentive to be current in the work done in other countries for many faculty members.

We have therefore the paradox that our system is highly international in some ways -- in the numbers of international students and visiting scholars who come to our shores -- and highly insular in others -- in the awareness of scholarly activities elsewhere, and interest in international collaborations among institutions or groups of scholars.

One of the great unanswered questions about the future of elite institutions in the United States in the coming decades is how much we will become involved in genuine collaboration with, institutions in the rest of the world. There are some signs -- through scholarly exchange programs and increasing travel in every direction for conferences, lectures and internships -- that more and more Americans are interested in what is happening abroad. But I fear that our institutions of higher education are so preoccupied with the challenges we face close to home that we have given little thought to how we might take advantage of, much less provide leadership for, global education.

A considerable amount of energy is being devoted by American institutions to cultivating markets...
abroad, attracting students and faculty members from around the world to our elite universities. This is not the same, however, as participating in the development of a truly global perspective on higher education. Such a development requires genuine partnership, learning as well as teaching, reaching out for institutional patterns of collaboration rather than thinking only in terms of market share.

The potential advantages of collaborating today are so great, and the ease of doing so with the technological tools available to us is so striking, that we may be hopeful that our tendencies towards insularity will be overcome. The future in higher education will surely become more global, with or without conscious direction, and with or without thoughtful American participation. But we shall all surely be better off if we in the US think about what we are doing, and join together to accomplish visionary goals, rather than risking the consequences of global drift, and missing some tremendous and timely opportunities.

Occasions such as this clearly help lay the foundations for such collaborative partnerships. I trust that we will be able to build upon them as we plan together for the brave new world ahead. Thank you.


2. The Canadian system of higher education has many common features, but in this address I will concentrate on the colleges and the universities in the United States.


