

DGF Opening Year address 9.10.13

Thank you, Dutch. It is a pleasure to welcome everyone to this new academic year. Each September I find myself transported back to that sense of fresh beginnings and infinite possibility I experienced from my very first days of school as a small child. In our new digital world, it may no longer be about the alluringly blank page of a new notebook, but each fall we continue to find ourselves considering what it means, in the words of Seamus Heaney, to “begin again.”

This September, we have the privilege of greeting new students across the University from more than 110 countries and all 50 of our United States, drawn to Harvard by its myriad degree programs, its outstanding faculties, and its reputation across the globe.

Last week, I welcomed 1,665 undergraduates to Harvard College, and they looked—as undergraduates tend to—irrepressibly eager and impossibly young. Joining them are the nearly 5,000 students beginning programs of graduate and professional study across the University.

To their multitude, we add 69 new ladder faculty as well as scores of other new scholars, teachers and scientists. They will push the frontiers of knowledge, deepening humanity’s understanding of language, linguistics, and literature; peering into the human body and the heavens, and unraveling mysteries of human experience.

We welcome new leaders as well: a new dean at the Graduate School of Education—James Ryan, whose widely acclaimed scholarship at the intersection of education and law is matched by his deep commitment to expanding educational opportunities for all students. And a new vice president for the Harvard Library, Sarah Thomas, whose experience leading major academic libraries will shape the future of one of the University’s greatest treasures.

Our new community members join us at a time when higher education is undergoing rapid and dramatic transformation. We live in an era when knowledge is of growing importance in addressing the world's most pressing problems, when technology promises both wondrous possibilities and profound dislocations, when global forces increasingly shape our lives and work, when traditional intellectual fields are shifting and converging, when public expectations and demands of higher education are intensifying. I see many unprecedented opportunities in these developments—opportunities for our teaching, for our research, and for our global connections and reach.

New understandings of human behavior and the brain, along with advances in digital technology, have opened the door to remarkable new possibilities for teaching and learning, both face to face and online. How can we best use time in the classroom? How can we connect people and intellectual resources beyond the classroom to enhance what happens inside it?

As we enter the third year of HILT (the Harvard Initiative for Learning and Teaching) and the second year of edX, and HarvardX, our faculty and students have positioned themselves at the forefront of seeking answers to such questions. Nearly 60 faculty from across the University have created or are creating courses and modules for HarvardX. More than 150 faculty, students, and staff have received support from HILT for ambitious projects in every Harvard School. These innovations in teaching aren't just about technology. Throughout the campus, schools and professors are expanding opportunities for hands-on, experiential learning. We recently launched new undergraduate concentrations in electrical engineering and in mechanical engineering, and a new master's degree in computational science and engineering—areas where we've seen an explosion in demand. Students in the College are pursuing a new architecture track taught by Design School faculty. The Medical School has inaugurated a master's degree in clinical and translational investigation; the Law School's clinical programs are growing, and the FIELD curriculum at the Business School has sent MBA students all over the world.

At the same time, faculty are erasing boundaries on the map of knowledge. So many of the most intriguing and important questions in the world transcend any single discipline or professional field. Here, poetry and Latin American studies converge in an exhibition about democracy; law, policy, and technology intersect in considerations of digital privacy; computation, mathematics, medicine, and basic and clinical science fuel drug discovery.

In education and research, we increasingly operate in a global context, bringing the world to Harvard and our students and faculty to the world. Our campus is cosmopolitan, and broad perspectives enrich our curriculum—from the most popular undergraduate secondary field, global health and health policy, to the new master's degree in global health delivery at Harvard Medical School. We have alumni in nearly every country. We reach across borders to address environmental challenges in Brazil, to study urbanism in India, to track the spread of disease in Kenya, and to explore connections between faith and social action in Nicaragua.

Harvard is about possibilities. Here, it is possible to change how our successors will think about learning and teaching. Here, it is possible to attend a Divinity School lecture on goodness by Toni Morrison, and a Mahindra Center seminar on the nature of evil. To take in—or even participate in creating—a Tony Award-winning show at the A.R.T., or to hear Matt Damon talk about his fear of failing a playwriting course. To listen as Wynton Marsalis reflects on the significance of time. To engage a panel of experts on the enduring importance of the humanities, and to read a groundbreaking faculty report on how they might best be taught. To discover what foods might prevent heart attacks, and what firewalls might stave off hack attacks. All in the span of six months.

Here, it is possible to meet—and to become—entrepreneurs who are building apps and businesses and cultural enterprises. Here it is possible to unlock the promise of stem cells or the meaning of a verse, to speed the creation of drug therapies or to struggle with the meaning of

justice, to design a human organ-on-a-chip or a public space that draws you back again and again. It is possible to encounter one-of-a-kind archival treasures—Lincoln’s math homework was recently discovered at the Houghton Library—to improve human health a continent away, or to create sustainable energy sources vital to the future.

We have the good fortune to come together in a community not quite like any other on the planet. It is a community where people think and act, imagine and realize. It is what all of you do, and all you *can* do, that fills me with optimism about Harvard’s future.

That is not to say that these are entirely optimistic times. American higher education is undergoing seismic shifts, and facing extraordinary pressures. Harvard is not immune.

As technology evolves and as familiar boundaries shift on the map of knowledge, educators are being pressured at every level to adapt in response. Technology is also giving rise to new educational models and to a whole new field of competitors who would seek to redefine what it means to “go to college.”

A difficult economy has led to weakened job markets. This in turn has fed a tendency for more people to see higher education in increasingly narrow and instrumental terms—to ask more and more “How can education get students on track to land their first job?” as opposed to “How can it help them learn all they can to shape meaningful, valuable lives?”

The cost of college has been rising, even as family incomes have remained stagnant or declined and as student debt has grown. Students and parents as well as policy makers have criticized tuition increases, and last month the Obama administration called for measurable “outcomes”—overwhelmingly job related—to justify the investment of four years in college.

Meanwhile, as other nations invest heavily in new universities and scientific institutes, we see the rise of new global competitors and new options for study and research for the best and brightest from around the world. Yet here in the United States the decades-old partnership between universities and the federal government is at risk of unraveling. The budget sequester translates to an estimated \$10 billion reduction from the 2013 federal research and development budget. The National Institutes of Health calculates that cuts to its resources could cost more than 20,000 jobs in the life sciences sector, and a survey suggests that fully a third of young scientists are considering switching careers.

Here at Harvard, federal research funding covers 16 percent of our operating budget. Unless Washington changes course, which we and others have loudly urged, we could see declines of as much as \$40 million annually in federal support for our research.

What does all this mean? Faculty are finding that even grant applications with excellent peer evaluations are being rejected. Existing awards are being reduced. Aspiring younger scientists fear they will be denied the career-launching grants on which their future depends. Some are entertaining overtures from other countries where science investment is surging. This is a challenge not just to American universities, but to American competitiveness, and it is a financial challenge for all research universities, including ours.

Revenue from tuition is likewise under tremendous pressure. Higher education will not find the solution to its financial challenges through unsustainable increases in the price of education. The high cost of college is a major concern of most American families, and a major policy priority in Washington. We at Harvard believe that college must be affordable, and that students with the drive and talent to get into Harvard's schools should not be kept from attending because of cost. But that has meant major increases in spending on financial aid, resulting in no real growth in net tuition revenue over the past decade.

Beyond these external pressures, elements of our own structure put our University at financial risk: our escalating costs, our significant endowment dependence, and a tendency in some areas to duplicate activities across the University, without close attention to opportunities for shared effort or infrastructure.

When markets and the endowment were booming, Harvard had a greater margin for error. We could afford to focus less intently on hard choices about what to do, what not to do, and what to stop doing. We didn't need to aggressively seek out new and nontraditional sources of revenue. Those days are gone. Even as economic conditions gradually improve, we have much work to do to assure our long-term financial strength. We have achieved break-even financial results for the past couple of years, thanks to the hard work of many of you. But we expect a deficit this year—and we face the specter of costs rising significantly faster than revenues, as we look ahead. Earlier this year, Moody's Investors Service published a report assigning a negative outlook to the higher education sector as a whole. It explicitly included, and I quote, "even...the market-leading diversified colleges and universities" in its darkening forecast. What Moody's described resonates with what we see here at Harvard: namely, "...mounting pressure on all key university revenue sources, requiring bolder actions by university leaders to reduce costs and increase operating efficiency."

The Harvard Campaign, set to launch next week, is one strong and important response to these pressures. It will help us fund important priorities going forward. It will help us address many of the challenges I outlined earlier: the changing nature of knowledge, the rise of new technologies, our growing global interconnectedness. Financial aid and faculty resources will figure prominently in our efforts, because what we can do depends vitally on who we are—on the strength and breadth of talent that makes up our community. And the campaign will help spur the development of Allston, envisioned as a place where we can experiment with the increased fluidity of boundaries between fields and schools, and between the university and the wider world. But we should be clear: the campaign, for all that it will help us achieve, is not and will

not be a panacea. Harvard and higher education face larger, longer-term pressures, and we must not think of the campaign as our only response.

I'm often asked how Harvard, with its \$31 billion endowment, can really face financial pressures? The endowment is a critical strategic asset for us, and the largest in higher education. But it is not a \$31 billion checking account. If there are two things you should know about the endowment, it is that it is *restricted*, and that it is *forever*.

By restricted, I am referring to the fact that most donors give endowment gifts with specific objectives in mind, and require that the University spend their money, and whatever earnings that money generates, only in service of those objectives. This is why investment earnings on a gift made 100 years ago to support medical school professorships cannot be spent to renovate Houses in the College.

By forever, I mean that we hold endowment gifts in trust for the benefit of generation after generation of students and scholars. We are obligated to preserve the purchasing power of these gifts over time by spending only a small fraction of their market value each year. This means that of our \$31 billion endowment, only about five percent ends up in the University's annual operating budget. Spending significantly more than that over time, for whatever reason, would privilege the present over the future in a manner inconsistent with an endowment's fundamental purpose.

I describe these sobering realities because, to address them, we all need to understand them. Our financial challenges are meaningful, but manageable. The future we shape is up to us: we must meet these challenges with the same creativity we bring to our intellectual pursuits, and the same openness to new ways of thinking. And this must be a shared commitment. For without the ideas and energy of the entire community, we will not be successful in improving our financial trajectory—and in the long term, rising to that challenge is what will sustain Harvard as a place

of such extraordinary possibility.

To ignore the forces of change, to hope or trust they will just go away, to imagine that Harvard is somehow exempt from the pressures facing others would be to surrender our power to shape our destiny.

Over the past several years, we have had a variety of conversations on campus that have addressed aspects of these questions. Since 2008 we have been asking what is a sustainable financial model for a 21st century university. Last year we as a community began to consider with some intensity the possibilities and perils of online education. Faculty have undertaken insightful examination of the role and future of the humanities. Schools, centers and a university-wide task force have worked to define our global identity and strategy. We are reconceiving the structures of the University's libraries. These seemingly separate inquiries are in fact all a part of an important, continuing discussion, as we make the choices about what the future of Harvard should be.

We face significant challenges. We will meet them. To do so, we will need to act, thoughtfully and decisively, and as a community, to adapt where we need to, to change our practices or our focus where circumstances warrant, and at the same time to remain steadfast in defending what makes Harvard—and universities in general—such essential and irreplaceable contributors to the pursuit of knowledge and the welfare of the world

The mathematician and philosopher Alfred North Whitehead once said that “The art of progress is to preserve order amid change and to preserve change amid order.” That is our task: to preserve what Harvard has been and has stood for across four centuries, even in the face of pressures to focus on the immediate and instrumental. And to evolve to meet the demands of these changing times. We do not face a choice between tradition and change, the familiar and the new. We face an opportunity and an imperative—as Harvard has with each generation—both to

embrace thoughtful change and to affirm our core values in ways that fulfill this extraordinary university's enduring promise to our students and to the world. It is a privilege to be joined with you in this work. Thank you.