

**CCAS Award Keynote**  
**“Colleges of Arts and Sciences: Continuity and Change at the University’s Core”**  
**Washington Hilton**  
**Smithsonian Institution Secretary**  
**David J. Skorton**  
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Thank you, President Johnston for that introduction and for your leadership at the Council of Colleges of Arts and Sciences. Thanks also to Dr. Say; I know CCAS will be in capable hands in the next year. And finally, let me thank CCAS for this 2015 Arts and Sciences Advocacy Award.

I believe strongly that an education in the liberal arts is essential and can transform individuals and society for the common good. The sciences, social sciences, arts, and humanities are at their core the distillation of our intrinsic need to understand ourselves and the world around us and to express ourselves. I am honored to accept this award, and I pledge to continue to champion these endeavors that are so central to our shared humanity. The colleges of arts and sciences are absolutely critical in our shared journey to understand and to inspire.

What a challenging time for higher education!

Is the traditional residential undergraduate experience an endangered species? If you believed everything you read, you might think so. To paraphrase Mark Twain—actually, to paraphrase a misquote of Mark Twain—reports of the death of the traditional university experience are greatly exaggerated.

Those reports often stem from at least two things: First, the assumptions about the effects of online education. Second, concerns about the perceived decline in the value of a college education compared to its cost.

As to the first point, the value of personal interaction, of person-to-person discussion and debate, will never be replaced by online coursework. If the value of face-to-face meetings were so outdated, why would you have come here today? We could have all stayed home. You could have mailed me the award. I could have delivered my talk via Skype.

Granted, if you had stayed in your home towns, you wouldn’t have been able to see all the fantastic free museums, art galleries, and the National Zoo of the Smithsonian in the nation’s capital.

To the second point, I think it is reasonable for people to expect a return on the investment of a college education, especially in times of continuing fiscal uncertainty. But that simply can't be the only measure of a college degree, though.

50 years ago, CCAS was created, helping give voice to the importance of arts and sciences colleges in higher education. Ever since, you have articulated the virtues of a liberal arts education. In 1965, the same year that CCAS came into being, President Johnson signed into law the act creating the National Endowment for the Arts and the National Endowment for the Humanities, solidifying the importance of the humanities and the arts on the national stage. Today, more than ever, we need organizations like CCAS, NEA, and NEH to remind us of just how vital the arts and humanities are to society. We forget at our collective peril.

Author Frans Johansson has written about the “Medici Effect,” when innovation springs from the convergence of diverse industries, concepts, cultures, and disciplines. The title of the effect derived from the patrons of the arts and sciences, the Medicis, who fueled this kind of innovation in Renaissance-era Florence. It is just as true today that when you bring together and cultivate minds from across a range of disciplines, then new ideas, creativity, and innovation can and do flourish. That is the environment that universities, particularly those with robust arts and humanities programs, are so good at creating.

And that's what I want to talk with you about today—how we all, working together, can enhance and expand the role of the liberal arts in our society.

The traditional undergraduate university experience revolves around physical interaction, collaborative learning, an interactive development of social skills, and intellectual growth. That is equally true for the music major, the marine biology major, or the pre-med student. Even the time-honored pedagogical device of the lecture that has fallen out of favor in some quarters builds important skills in active listening and focus. As author Molly Worthen wrote in a recent New York Times op-ed, “Good lecturers communicate the emotional vitality of the intellectual endeavor.” Personal interaction with new people and new ideas lies at the heart of a liberal arts education.

CCAS has enumerated many of the benefits of a liberal arts education: “a dedication to critical inquiry, sensitivity to cultural and social contexts, independence of thought and reasoning, and respect for the breadth of human endeavor.” The value in a traditional liberal arts education has wide-ranging benefits for individuals and for society.

Yes, some of those benefits are economic, with employers seeking out crucial skills that a liberal arts education provides such as problem-solving, critical thinking, teamwork, and communication. An article in Forbes recently identified a liberal arts degree as “tech’s hottest ticket.”

But as Hunter Rawlings, my colleague and fellow former president of Cornell and University of Iowa, said in a June Washington Post piece, we should stop looking at college as a mere commodity, valued only in economic terms. The arts and humanities are inherently valuable. As CCAS’ President Johnston noted, “A college education really is a preparation for life, it’s not training for the first job you get.”

Harvard president Drew Faust is an eloquent spokesperson for the value of an education in the arts and humanities. She has said:

- “It is far better to create in students the capacities to confront the circumstances of life with a combination of realism and resilience and with habits of mind and skills of analysis that transcend the present.”
- “Interpretation, judgment, and discernment will always be in demand, and they are cultivated and refined in the humanities.
- “Students in the humanities learn how to think critically and communicate their ideas clearly, and those transferrable skills lead to rewarding lives and careers in every field of endeavor.”
- And finally, “The ability to innovate...requires thinking beyond immediate needs and making creative leaps. Where better to model this approach than in the arts and humanities? They champion boldness in doing and thinking, leading to new and deeper understandings of the world.”

Her advice is applicable not just to research universities, but to society at large. I hope people will heed it. Now, more than ever, we need boldness and a deeper understanding of the world that come from the comprehensive knowledge base and critical-thinking skills that the arts and humanities provide.

As society places more emphasis on science, technology, engineering, and math, higher education continues to devote more resources toward those disciplines. As a physician and researcher, I have spent an academic career immersed in the STEM disciplines, but I can tell you that science must be complemented by humanities when understanding, diagnosing, treating, and comforting patients. Communication,

interpersonal skills, and emotional intelligence are all critical skills needed to treat illness effectively. In a more general sense, society's challenges cannot be overcome by STEM disciplines alone.

As you all know, our nation and the world face serious problems.

Climate change. Political gridlock. Scientific and historical illiteracy. Conflict in our cities and abroad. These problems are not intractable. But they will only be solved with a populace broadly educated in the humanities and sciences, working in concert towards solutions, and prepared to make difficult decisions about complex issues.

As Thomas Jefferson once said, "If a nation expects to be ignorant and free, in a state of civilization, it expects what never was and never will be."

So how do colleges and universities adjust to today's world?

First let's take a close look at the most challenging changes we see today. Many things are disrupting the status quo, from the rapid growth in online education, with MOOCs, flipped classrooms, and individualized learning, to the changing demographics of higher education. The student bodies are more diverse, older, and more and more populated by typically underrepresented groups. More low-income students are enrolling in college than they did 40 years ago. Women now comprise about 57 percent of all college students. A report by the Institute for Women's Policy Research shows that a quarter of those in college today—nearly 5 million students—are raising dependent children, and more than half of those students are single parents.

Costs continue to rise. According to the American Institutes for Research Delta Cost Project, inflation-adjusted tuition and fees at four-year public universities and colleges rose about 160 percent between 1990 and 2012. Those costs are disproportionately borne by students, who now pay more than half of what it costs colleges and universities to educate them thanks to falling state support. Even at private universities where endowments and other revenues help defray costs, students are bearing a larger share of the burden.

Student debt is now the second highest source of debt in the country behind mortgage debt, higher even than credit card debt, at more than 1.2 trillion dollars. The average class of 2015 graduate will owe a little more than \$35,000 in student-loan debt. And of course, that doesn't include the interest on those loans. As Forbes' Josh Freedman points out, student debt "has potentially negative social and economic effects that spread beyond the college campus" – from delaying buying a house or a car to inhibiting the ability to start a business.

These impediments to higher education all come at a time when a college education is more important than ever. According to the Gates Foundation, we are expected to produce 11 million fewer career-relevant certificates and degrees than our economy will require by 2025.

Yet none of these changes are insurmountable obstacles. They are opportunities to learn and grow. As educators, as deans of colleges of arts and sciences, how do you do that? As someone who led two different institutions of higher learning and now faces some similar challenges at the Smithsonian, there are some lessons I have learned about dealing with the changing educational landscape. Specifically, there are four areas that I think higher education can address.

The first step is to acknowledge change and adapt to it. It does no good to yearn for the good old days. The world is littered with wildly successful companies and industries that have gone by the wayside because they weren't nimble enough to adapt. That doesn't mean changing for change's sake or following the latest trend, but we can take new methods that work best and incorporate them into our universities. Whether supplementing the traditional brick and mortar education with online learning, adapting to the changing student body, or improving our ability to assess educational outcomes, we have to be flexible.

Take technology, a tool we can use to engage students, expand our reach, and contain costs for students.

In 2014, Georgia Tech partnered with AT&T and Udacity on the first accredited, degree-granting MOOC program, a Master's degree in Computer Science.

Its cost? Less than \$7,000, compared to the traditional Master's degree that can cost nearly \$45,000 for on-campus students.

Again, I don't think online classes like these will replace the traditional university experience, but increasingly they can supplement it.

The second piece of advice I would give is that we have to work together better, both within and among our institutions and with outside partners. Collaboration brings unique perspectives into juxtaposition, often leading to unexpected connections and flashes of insight and inspiration.

That kind of collaborative innovation was on full display in 2010. New York City Mayor Michael Bloomberg held a competition for universities to build an engineering and applied sciences graduate education and research campus on city land. Cornell and the

Technion-Israel Institute of Technology partnered on the winning bid, proposing an innovative graduate program that is now Cornell Tech. It is a school set up without departments. Instead, it is set up along areas of study called hubs, areas where we think entrepreneurship would be helpful to New York. It is an experiment, and it is too soon to tell if it works, but that is the kind of lateral thinking that all of us need to be willing to try.

The third area for improvement is the reason for this event, the reason CCAS was created 50 years ago—communication. CCAS knows the value of advocating for the liberal arts. But in this age of funding shortages at all levels, all of us must hone our communication skills, and not by preaching to the choir. To continue the metaphor, we have to convert the masses.

Much too often, the arts, the humanities, and even education as a whole are dismissed out of hand. They are called a luxury. If they don't lead directly to a job, they are deemed not worth funding. Confoundingly, some have even called for state funding to be totally withdrawn from state universities. Which, at that point, how could they really be state universities?

All of us in the arts, the humanities, the sciences, must become fierce advocates for our disciplines and for the critical need for education as a whole. In my view, universities must help their faculties and their researchers become more effective champions of the liberal arts. More than that, they must insist on it. Gone are the days when researchers and academics could confine themselves to their labs or offices and not worry about justifying their work. Gone, too, are the days when scholars and scientists could afford to couch our language only in professional jargon. Today, educators of all stripes must be able to advocate for liberal education, to the public and to politicians alike.

And of course, institutions of higher learning should make it a priority to engage students. That means tailoring education to meet students where they are in their lives: underprivileged students; older students; and even if they have not yet arrived on our campuses.

A recent study asked 22,000 high school students, "How do you currently feel in school?" The results were eye opening. 39 percent of students said they felt "tired," 29 percent said they were "stressed," and 26 percent said they were "bored." Only 4.7 percent said they were "excited." How can we expect our students to learn if we are not exciting them?

Some of you may think that K-12 students should not be in the purview of colleges. But the reality is that public schools' resources are stretched incredibly thin. Institutions of higher learning are much better equipped than most high schools. That is why colleges and universities should reach out to teachers and help local schools prepare their students for postsecondary learning. Think of it as cultivating the next great minds.

In all of these endeavors, we all need to be bold and creative.

Mayor Bloomberg was at the Smithsonian's National Museum of American History a few weeks ago and gave a riveting off-the-cuff speech on failure and innovation. He was resilient and successful in both the public and private sectors. But he was never afraid to fail—nor should we be.

I am an optimist by nature. I met with many talented young people as the president of Cornell and Iowa, and I see many of them walking through the museums at the Smithsonian. It is incumbent on us to engage them, to excite them, to inspire them. And I know we can do it by working together, working with others, and communicating the word that a liberal arts education is not a luxury for the elite, but the very foundation of our progress. Thank you.