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BEYOND THE IVY ISLANDS: BUILDING UNDERGRADUATE TEACHING MUSCLE IN PUBLIC UNIVERSITIES WITHOUT DETRACTING FROM RESEARCH

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ABSTRACT

Reviewing Andrew Delbanco's new book, *College: What It Was, Is, and Should Be,* this paper explores the current shifts in the college model—particularly those occurring at overstressed public campuses—and offers suggestions for improving teaching effectiveness in "dustbowl" classrooms to avoid the progressive mechanization of the undergraduate curriculum over the next decade and a growing exodus from public universities to online colleges-in-name-only.

I.

It is odd to think that we live in a time when the college model may be in the process of breaking apart. So much suggests that college has never been more successful. Record numbers of students graduate every year. Every graduating class is more diverse than the one that preceded it. Foreign students flock to American quads. Harvard economists tell us that the college degree has never been worth more, relative to the high school degree, than it is today. Bill Gates and President Obama call for a doubling of the proportion of young adults with college degrees over the next decade. We seem to be heading for the day when we won't have enough commencement speakers to go around.

And yet other indicators suggest that the college experience has never been more imperiled. Tuition has been increasing faster than inflation for more than 30 years. Some economists have begun to argue that college costs more than it is worth. Studies like Richard Arum's and Josipa Roksa's *Academically Adrift* suggest that the bottom third of students are not developing their analytical skills or thought processes in college, largely because not much is required of them. The fastest-growing parts of college budgets have nothing directly to do with teaching, but instead go to administrators and student affairs staff. In their efforts to shift enrollments to two-year community colleges, politicians like Louisiana's Governor, Bobby Jindal, have stated flatly that "most future jobs [in America] will require more than high school but less than four years of college." More radical still are plans to break up degree programs into distinct, definable skills and to award badges for successful acquisition of each skill. Even institutions like Harvard and Stanford are hedging their bets on the future of site-specific four-year baccalaureates by sponsoring ambitious online projects. Maybe those legions of commencement speakers won't be necessary after all.

The ideal image of college remains that of a four-year experience, offered to young adults over the age of 17 who have successfully completed a secondary school education. It is located on a physical campus setting, and places a high value on the face-to-face interaction of professors and students, which is thought to be essential to the process of students' intellectual and personal growth. It involves intensive study in the classroom, laboratory, and library, under the tutelage of teachers with doctoral degrees, as well as opportunities for personal development through participation in student-led organizations. The purpose of this experience is the creation of more intelligent members of society. For this reason, the experience is open to students from all socio-economic backgrounds, provided that they have shown the motivation and mental capacity to gain from it. Above all, it is not intended to be simply a preparation for work, but a time to "find oneself" and to develop the interests, the ways of seeing, and the spirit that will carry one forward in life. The history and defense of this ideal is at the heart of Andrew Delbanco's new book, *College: What It Was, Is, and Should Be.*

For most of American history, this experience was limited to the children of the economic and cultural elite, plus a few highly motivated scholarship students. The American project to provide college for the masses is a phenomenon of the 1950s and 1960s, when vast federal and state investments in educational infrastructure resulted in the creation of hundreds of new four-

year institutions. Are we seeing the end of that ambitious experiment? Social institutions can break down for a variety of reasons. They can become too expensive to maintain. They can fail to deliver on what they promise. They can be superseded by more efficient or less costly alternatives. They can also find ways to renew themselves in the face of potentially damaging attacks.

Delbanco's book is written from the balmy side of the divide between elite and mass higher education. Delbanco is a professor of literature at Columbia University. Ivy League colleges, clustered on the Eastern seaboard, realistically now include at least Stanford and Cal Tech on the West Coast, as well as Chicago and Northwestern in the Midwest. A broader definition would sweep up liberal arts colleges like Williams and Swarthmore, the so-called "little Ivies." These colleges at one time provided the model that all respectable institutions of higher education hoped to emulate, but the prospects for emulating them have become more and more remote. On every measure—from chances of admission to size of endowments to monopolies of honors—the distance between Ivy colleges and the rest has grown. They might better be labeled the Ivy Islands than the Ivy League to emphasize their distance from the institutions of mass higher education. The Islands are more cut off from the rest of the country, perhaps, than from the world. The wealthy from Europe, Asia, and South America crowd the streets of the Ivy Islands, exploring for intellectual treasures and partners in trade.

Delbanco's position on the Islands is distinctive and, in many ways, he exemplifies what is best about them. The undergraduate college at Columbia is one of the few remaining programs that still requires new students to read canonical texts in a common core course. The instructors make the sacrifice of their research time to teach these texts and to talk together about teaching them, because they are convinced of their value and want to do them justice. These texts, Delbanco and his colleagues claim, pose some of the great questions of life. "Certain books," he writes, "tell us that the questions we face under the shadow of death are not new, and that no new technology will help us answer them: Does Achilles' concept of honor in *The Iliad* retain any force for us today? What would it mean truly to live according to Thoreau's ethic of minimal exploitation of nature, or by Kant's categorical imperative? Is there a basis for the Augustinian idea of original sin? Such questions do not admit of verifiable or replicable answers because the experiment to which we must subject them is the experiment of our own lives" (p. 101).

The relation between religion and this model of liberal education is clear. The first university teachers, after all, were clerics and the robes still worn at graduation ceremonies were originally ecclesiastical robes. Humanistic education, like religious education, has been based on the examination and reexamination of "sacred" texts and the application of their lessons to one's own life and experience of the world. For centuries, educational priests have pored over, argued about, and added commentary to these texts; their goal has been not just to understand the works, but also to create new men and women through a process of intellectual rebirth. Teachers like Delbanco believe that what they offer students is the best hope for a better world, and they attempt to improve individual human beings by exposing them to life-changing works and convincing them of their importance. Delbanco's view mirrors Ralph Waldo Emerson's: "The whole secret of the teacher's force lies in the conviction that men are convertible. And they are. They want awakening."

Readers who are loyal to the "church" of traditional liberal education will find pleasure in a book that shows geometrical skill in locating the precise angles from which to poke the Educational Efficiency Establishment in the eye. Delbanco's ideal teachers are not technicians trained to produce right answers through the tightly structured transmission of content. They are patient, rather than efficient, and they raise tension in the classroom rather than reducing it. They prefer to teach by questioning. They pause before answering to encourage discussion, and they often "teach with their mouths shut," because they know that "minds must work to grow." They know that an immediately measurable quantity of learning is not always the proper judgment of the success of a teaching hour. Delbanco credits the Puritan minister Cotton Mather with a more realistic moral psychology of learning than today's efficiency experts, because Mather wrote that learning "sometimes proceeds in steps, sometimes in leaps, sometimes by sheer surprise in the absence of exertion, sometimes by slow and arduous accretion through diligent work" (p. 47).

Delbanco's teachers see themselves as part of the character-formation process. "College," he writes, "more than brain training for this or that functional task, *should* be concerned with character…Although we may no longer agree on the attributes of virtue as codified in biblical commandments or, for that matter, in Enlightenment precepts…students still come to college not yet fully formed as social beings, and may still be deterred from sheer self-interest toward a life of enlarged sympathy and civic responsibility" (pp. 43-4). The development of character demands hard work on the part of students. Paradoxically, students also develop through what can seem like idle contemplation. Following the advice of Walt Whitman, they should "loaf and invite their souls." Students may learn skills in college but, more importantly, they are "touched and inspired" and become something new. They are not trained for a particular future in the labor market, but rather to open their minds to experiences that would otherwise be closed and to develop "the inside of [their] heads," as former Barnard president Judith Shapiro has put it, so that they are "interesting places to live" for the rest of their lives. They are expected not just to think, but also to act and to contribute to the well-being of their communities. They are successful because they have learned to think well, to feel deeply, and to pursue their interests with spirit. Delbanco's estimate of who among America's youth deserves such an education is expansive, very much in

the spirit of the post-World War II planners. "An American college," he writes, "is only true to itself when it opens its doors to all…who have the capacity to embrace the precious chance to think and reflect before life engulfs them. If we are serious about democracy, that means everyone" (p. 35).

Compendia of valuable ideas, woven together in elegant narrative forms, are one of the products Ivy Islanders have always excelled in producing. A work like this one will be appreciated by other Ivy Islanders, of course, but it may be more important for the inspiration it provides to those posted off the Islands. Educational missionaries, fortified by this faith, do not let the challenges of spiritually arid environments overwhelm them. They travel on, benign presences, lighting the way where they can. They keep the educational faith alive. But, if they are wise, they know that private contemplation of comforting words will not alone make flowers bloom.

II.

It is important to note that *College,* which works so well as inspiration, fails as anthropology. Delbanco's ideal teachers are numerous in the "little Ivies," but unless conditions have changed dramatically since my years of residence on the Islands, they are not particularly representative of the professorial species found in Ivy research universities. There the culture of "productivism" loomed large. To sustain the high regard of peers and benefactors, professors were required to produce brilliant works with prodigious regularity. They sweated over scholarship and charmed during sherry hour. But undergraduate teaching was not, for most, a particularly highly valued part of the role. For every professor who lectured with Shakespearian flair, I can recall several whose lack of devotion to craft might have been cause for censure on grounds of incompetence, if anyone had been keeping track. One world-famous social scientist of my acquaintance lit up in front of strings of numbers, but read his lectures in a barely auditory monotone, eyes and hands fixed on the podium. Another stayed up well into the night working on research papers—and made up for lost sleep while students were presenting in his seminar. A third set off dazzling displays of analytical pyrotechnics in what seemed like a single breath lasting 45 minutes. But only the most gifted students could hope to track these wildly gyrating bursts of erudition.

Most students reciprocated with less-than-stellar academic efforts. They could certainly write intelligent essays and hold conversations bristling with enthusiasm for new ideas, but the life of the college, from the students' point of view, lied largely outside the classroom. This is where most of them poured their energies, and the colleges knew it. Prospective students and their parents toured newly-refurbished residence halls, strolled on historic grounds, and peered at the inexpressive exteriors of secret societies, but they were required to step foot in a classroom only briefly. In these brief visits, guides emphasized the many student organizations in which students could pour their energies. The message: Academics are excellent here, of course, but don't let them prevent you from experiencing what the college really has to offer.

Today, I imagine this may be truer than ever. By Delbanco's count, 60 percent of graduates of the top Ivy colleges go to work for the financial services industry, a line of work which does not require deep engagement with the great works of thought, though perhaps we would all be better off **if** it did. An Ivy Island colleague of my acquaintance downplayed his role in the undergraduate educational process, which he saw as primarily an opportunity for social networking. Students here, he told me, are like pinballs: "We are there to help them collide with each other. When they collide, good things tend to happen."

Indeed, this is nothing new: an important purpose of Ivy League education has always been to facilitate opportunities for students to meet other students and alumni who are well connected to centers of power in society, and to hatch projects with them. Equally important, graduation from an Ivy college is an exceptionally prestigious distinction that tends to make later life much more agreeable. As in every college, some students do engage the great questions of life. Some find friends or mentors who help them to discover unexpected facets of their selves. A few loaf and invite their souls. Some loaf and do not invite their souls.

Delbanco advances a peculiar theory about why the gap has grown between Island colleges and the rest, one that places a disproportionate emphasis on changing justifications for privilege. He believes that many Ivy Leaguers prior to World War II saw their privilege as accidental, bestowed by the mysterious grace of God. They felt they must contribute to the good of the community in order to earn their unmerited privileges. In this way, they experienced a distinctively Christian form of *noblesse oblige*. In the age of meritocracy following World War II, however, the sense of connection with less fortunate others ebbed; they weren't there by the grace of God but due to their own hard work and brilliance. They no longer felt the need to justify their privileges through actions that benefited the larger community, and Ivy institutions embraced these new sentiments. As Delbanco writes, "Our oldest colleges have abandoned the cardinal principle of the religion out of which they arose…to the extent that human beings are capable of worthy actions, they are unmerited gifts from a merciful God, and should be occasions for humility rather than pride" (pp. 138-9). Today, they "are in the business of building up the self-love of their students" (p. 137).

The historical record is not particularly supportive of this theory. Inattention to studies, public rowdiness, and jeering at the scholarly were prominent activities of Ivy men in 18th century colleges, and they continued well into the mid-20th century. The privileged tended to throw around their weight and to enjoy themselves. Idealists and disappointed status strivers might turn against the values of their social classmates, but they were in the minority. Instead, the "outsiders"—the bright but poor scholarship students—were more likely both to focus on their studies and to see themselves as members of broader communities.

The gap that has grown between the colleges of the Ivy Islands and the rest of higher education derives instead from the different "business models" they have inherited: one low volume and high cost, with an emphasis on craft production of society's leaders; the other high volume and low cost, with an emphasis on mass production of lower-level managers, experts, and technicians. That original difference has been amplified in recent years. Increasing inequality in American society has translated into increasing inequality in American higher education. States have cut back in their support for public universities, while the Ivy colleges have continued to thrive due to the high tuitions they are able to charge, strong federal research support for their highly productive professors, and the very generous financial support of alumni and friends, yielding endowments valued in the tens of billions.

III.

More important than the gap between the liberal education ideal and the reality of the Ivy League college experience, though, is the erosion of the ideal for millions who do not inhabit the Ivy Islands. Delbanco's vision of liberal education for the many is under heavy assault now. When Bill Gates and his colleagues talk of doubling the number of college graduates in the United States, they do not have anything like an Ivy League experience in mind. They believe that students want skills that will help them to obtain jobs, not more interesting minds to inhabit for the rest of their lives. They know that many students are not particularly motivated toward academic excellence, or prepared to perform at a high level even if they are so motivated. They see that class sizes are going up in many public universities and that resources for academic support are going down. They see that the states are talking more and more about limiting tuition and increasing efficiency. (Tennessee, for instance, has recently made plans to introduce a "no-frills" track in its institutions of higher learning; students pay less, renounce participation in student life organizations and also receive no academic advising.) They have witnessed the growth of the for-profit education sector, the epitome of the low-cost, hyper-efficient higher education they espouse.

These are the conditions that set the stage for pile-driving policy philanthropists like Gates, who want to transform the college experience. The goal of the educational industrialists is to produce the most graduates for the least cost. Many are well-intentioned Benthamites, believing in the greatest good for the greatest number, and alarmed by what they consider to be wasteful expenditures by colleges. But some have large potential economic interests in the mechanization of higher education. (Indeed, given constraints on state spending, the only feasible way to double the number of college graduates would be to shift most of the educational work online. It does not take exceptional foresight to see the market opportunities that would open from such an expansion for companies like the one Gates formerly headed.) From the perspective of an educational industrialist, students have realized their full potential when they obtain decent jobs and don't go broke in the process of gaining the necessary credentials to obtain them. The rest of the college experience praised by Delbanco is fine, but it is at best a byproduct, at worst a frill—not something essential to the enterprise of higher education.

Are the educational industrialists right? Are we fetishizing the trappings of the college experience, exported on the model of the Ivy Islands, at the risk of missing the main point of mass higher education? It is true that the purpose of college teaching is to communicate the fundamental ideas and principles of the disciplines and to help students develop skills that will be useful to them in later life. But, if we had our own children in mind, wouldn't we also hope that college teaching would inspire them to develop a more sophisticated understanding of the world, keener perceptions, stronger ethical principles, and to help them find the capacities within themselves to do important things in the world? Businessmen who acknowledge the value of a college degree but complain about waste are saying they only value the first set of attributes. The same is true of politicians who cut state higher education budgets in the name of fiscal discipline (with the expectation that colleges can fill their budget gaps with tuition revenues). They are telling us that what they want are people who can perform mid-level occupational functions competently, not people with the intelligence, confidence, and interpersonal skills to think beyond the immediate scope of their work. The online education world is not one in which people develop capacities for scholarship, sophisticated judgment, interpersonal awareness, or the disciplined passion required for new creations. Instead, students are separated behind highly structured course work in market-tested modules from the intellectual challenges and the interpersonal encounters that could help them to develop those qualities.

Most American colleges already do not aspire to create the types of human beings Delbanco has in mind. Some four-year state colleges have turned into vocational training centers, modeling themselves more closely on community colleges than on Ivy League schools. The humanities classroom survives in these places only because of general education requirements. Classes are smaller than in research universities, because instructors teach multiple sections, but they are not, by and large, taught at a higher level. Community colleges, a step down the ladder, would like to take the lead in work force preparation, but they are constrained by the poor preparation of their students. According to Columbia University's Thomas Bailey, a majority of community college students arrive with academic skills in at least one subject area that are too weak to allow them to do college-level work and nearly 60 percent must enroll in at least one remedial course.

In spite of the work of many dedicated teachers, very few students who enter community colleges transfer to four-year colleges—perhaps as few as one percent. (Many come for just a course or two.) They provide little in the way of personal development opportunities outside of the classroom—few student organizations, little advising, and minimal services. As for for-profit schools, they offer stripped-down and standardized occupational training programs, distinct from the on-the-job training offered by employers only by their longer duration and state subsidy through student loans.

Ivy Island colleges will continue to bestow outsized benefits by facilitating social interactions between talented, fortunate, and privileged people. When teachers of real skill and passion are present they will sometimes also live up to Delbanco's educational ideals. But it will fall to public universities—and particularly public research universities like those in the University of California system—to save some significant remnant of the "true" college experience from the buzz saw of industrialization that is now pointed directly at the majority of prospective college students.

A look at the numbers underscores the importance of public universities to the preservation of this social good. Some 70 percent of four-year college students are enrolled in public universities. The largest public research universities enroll more than 40,000 undergraduate students. Most Ivy colleges, by contrast, enroll 6,500 or fewer. Public universities are consequently far more closely tied to the fate of American democracy. Since their inception in the mid-19th century, they have been open to students from a variety of backgrounds, and they have always provided training in practical occupations, as well as education in the arts and sciences. Over the past decades, funds have been tougher to come by and students' interests in job-relevant credentials have been higher. At the same time, the idea that college is a place for realizing one's full potential remains strong in these institutions, as does the belief that higher education matters (or should matter) for something more than a job qualification.

As the Ivy Islands drift further from the mainland, we need to turn our sights more intensely on public universities; what happens in them will become more central to the future of American society. Here is part of what is at stake: Without them, the infrastructure for the country's technological sector would very nearly collapse; more than 70 percent of baccalaureate-level scientists and engineers are trained in public universities. The research force of the country would take a comparable hit, devastating some important fields such as aeronautics and agriculture, in which private universities play almost no role. Many other subjects and fields of study would all but disappear. Because of their size, the breadth of field coverage is much greater in public research universities than in their private counterparts. The pace of innovation would be slowed: The University of California alone has been responsible for the discovery of photosynthesis and the causes of ozone depletion. Its researchers have developed the ideas behind fire-retardant clothing, wet suits, bar scanners, methods for harnessing nuclear power, and the mathematics behind the Internet. They have founds cures and treatments for diseases from hepatitis to malaria. They have eliminated pests that threatened citrus production and produced cultivars that survive in arid climates.

Then, of course, there is the role that public universities play as platforms of opportunity and vehicles for social and economic mobility. They enroll a higher share of student from low-income backgrounds, when compared to private universities, and because of their much larger enrollments they greatly exceed the private colleges in the opportunities they provide both for low-income and minority students. Without them, these students would be all but squeezed out of significant higher education opportunities. From their diverse student bodies, public universities produce many more top leaders and intellectuals than their colleagues on Ivy Islands may credit—not as many per capita, but nevertheless impressive numbers. Among them: Neil Armstrong, Saul Bellow, Sergey Brin, Jimmy Carter, Francis Ford Coppola, Walter Cronkite, Gerald Ford, Pauline Kael, Joan Didion, Thurgood Marshall, Arthur Miller, Gordon Moore, Colin Powell, Mike Wallace, Elizabeth Warren, Eudora Welty, and Steve Wozniak. The traditional college experience is more than a fetish; it is a genuine benefit. It would hurt American society if it became a monopoly of the elite.

Yet the grounds for optimism about public universities rising to meet the challenges they face are limited. Once we sort below a few so-called "public Ivies" (such as Berkeley, Michigan, and Virginia) we find that many students at public universities are poorly-prepared for the traditional college experience and that schools are not doing much to cement their allegiance to it. Many are victims of low expectations; although students in engineering and physical sciences work hard, the same cannot be said of

most students in other fields. Perhaps one-quarter of public research university students attend class and study 18 hours or less each week—fewer hours than are required at a decent part-time job. About the same proportion say they do less than half of the assigned reading for their courses. Lecture classes are frequently half empty, and so few students are willing to talk in discussion sections that the graduate students who lead them often resort to lecturing.

Can public universities continue to provide mediocre instructional environments for so many undergraduates and still retain their high levels of enrollment? Perhaps they can. If most students are focused on their friendship groups and campus social life, the academic side of the college experience might continue to limp along at little cost to students' overall satisfaction with their college years. Rising tuition costs, however, are leading many parents and politicians to question the value of the college degree. It is an expensive proposition to send one's child to "public" schools with steadily increasing tuition for the sake of four years of friendships, hooking up, and tailgating.

The weakness of the current college model suggests that a likely outcome may be the gradual triumph of online higher education, with only a relative handful of Ivy or near-Ivy colleges landing on the face-to-face side of the new digital divide. Every year since 2003, when the Sloan Foundation first began keeping track, more students have been taking online courses for credit. The foundation's last survey of 2500 colleges found that 5.6 million students had enrolled in at least one online course. Online enrollment rose by almost one million students between fall 2008 and fall 2009, the most recent year of the survey, a growth of 21 percent over the previous year (compared to a two percent growth in the college total population). Some of the courses are so-called hybrids in which students have some face-to-face contact with instructors; others are purely online. The jury is still out about whether these online courses are effective, but government-sponsored analyses of hundreds of head-to-head comparisons have not found a clear pattern of significant differences between otherwise similar courses offered both online and face-to-face. Perhaps this is partly true because little learning occurs in the back rows of "face-to-face" lecture halls where so many students have their computers open to Facebook and ESPN.com. Nevertheless, some skepticism is warranted about the validity of these analyses, coming as they do from sources of varying quality and with varying interests.

No doubt some fields can be taught effectively in an online environment, provided that students are adequately motivated. Introductory mathematics and statistics courses are often mentioned as strong candidates for mass mechanization. And online learning does hold some advantages over face-to-face instruction: students can go at their own speed; they can easily review past lessons; if they are shy, they do not feel the pressure to engage in class discussion. Some second-generation online education products take advantage of attractive three-dimensional visual opportunities in virtual environments. One imagines that the cost savings from such technologies could eventually become significant. Most innovations in American life have come from finding ways for more people to obtain goods and services at lower prices. And, of course, students are now better equipped than ever to succeed in the online environment, after years of holding electronic technology to their ears and in their palms. Promoters will continue to describe these online vocational training sites as "colleges," but they won't have much to do with Delbanco's vision of what college should be.

IV.

There is no question that online learning opens up a new space, beyond the Ivy-public divide, and more and more students may eventually decide to learn there. If so, students' immediate sense of corporeal others who feel and react to them, make demands on them, offer sincere support to them, inspire them to do more than they currently can, challenge their habitual ways of thinking—these potentialities of the physical campus could be lost for millions of future students.

The problem is that potentialities too often remain unrealized. Resistance to further academic industrialization will therefore call for changes in undergraduate teaching to make it more effective than it currently is. Because the desirable changes are not particularly expensive (some save money) and are not particularly time consuming to put in place, professors can improve their work in the undergraduate classroom at little cost to the rest of their professional lives.

The first improvement will be to tighten the curriculum so that students can complete their majors in a timely way. If courses are well designed and well integrated, one year's work in the major should be sufficient to provide students with the depth they require. This translates into 9 or 10 courses in the major.

A second improvement will be to infuse into the regular curricula special high-impact academic opportunities as often as possible. The goal is to reproduce something of the private college experience in settings where lecture courses will inevitably dominate. These special opportunities include year-long course sequences exploring different facets of a broad topic of public or scholarly interest in which students take courses with the same group of peers to build a sense of academic community. Other such opportunities include one-unit freshman seminars to bring students into immediate contact with faculty, new study abroad

opportunities, expanded faculty-mentored research opportunities, and culminating experiences for seniors in which students are expected to produce an independent work of scholarship, research, or creative activity with the help of a faculty advisor.

Streamlining of majors should allow most faculty members to offer at least one undergraduate seminar every two years. Especially in popular majors, public university students need these smaller-scale experiences, because the steady diet of large lecture courses they have been consuming is not working for most of them. In the larger majors, students can graduate without ever participating in a working seminar. Professors may need to work harder in these settings than they do in the lecture hall. It is not easy to engage students in dialogue when many have come to think of education as the process by which they obtain answers for tests with as little effort as possible. Opportunities also exist for connecting academic and co-curricular experiences in ways that support the academic enterprise. The University of Pittsburgh is one of a growing number of institutions that attempt to harness the power of the hidden curriculum of student organizations by bestowing special honors at graduation on those who succeed in combining challenging academic experiences with co-curricular responsibilities. Similarly, one can imagine "tracks" for leadership, entrepreneurship, and civic engagement, each awarding its own special cord at graduation, that require enrollment in two or three connected courses and participation in related co-curricular activities.

The third improvement—the most difficult to foresee—will be the re-engineering of large lecture classes. Because of their high-volume "business model," public universities will never be free of large lecture halls, so they should attempt to make them more powerful sites for teaching and learning instead. Brilliant lecturers should, of course, be left free to captivate their audiences, but most professors are not brilliant lecturers. A growing research literature suggests they would gain better results by transforming their lecture classes from places of one-way transmission to places of interactive engagement. These studies, based on years of data gathered from many campuses, indicate that students learn more (and are more interested in learning) when professors provide relatively brief, concept-rich topic lectures and then break the class into small groups to discuss an application of the concept or the solution to a problem related to the concept. Students report on what they have come up with—and professors either commend and reinforce or correct. This format of short lecture followed by work in small groups can be repeated at least twice during a class period.

Clicker technology provides another means through which professors can bring more interaction into their classrooms. Clickers are registered to students and allow students to choose from among several answers to posed questions. They can be used to gauge students' background information about a topic, to poll the class for answers to questions, and to check how many students understand lecture points.

Other techniques can be used to engage students and to allow instructors to check to see whether they are getting through. Professors can stroll down the aisles of lecture halls or stand in the back where students' interest first flags, asking questions to different parts of the room. At the end of class, they can ask students to take a minute to describe the muddiest point in lecture, feedback that allows professors to clarify these points in the next class period. Formal debates, competitions for illustrations of key themes, and oral reports on secondary sources should be a regular part of the lecture hall fare because public performance is a powerful tool to motivate learning—just ask coaches and drama teachers.

These improvements—along with strengthening course requirements and grading standards where needed—are necessary for a marked improvement in undergraduate teaching in our public universities. University administrators will need to find the persuasive power, the mentoring resources, and, most importantly, the incentives to encourage them.

Surely the need to sprout green shoots in dustbowl classrooms has never been greater. If professors fail to make their classrooms and lecture halls come alive, it is easy to predict that public universities will witness the progressive mechanization of the undergraduate curriculum over the next decade and a growing exodus from public universities to online colleges-in-name-only. It is a process that could occur in any event.

Those who oppose this prospect will be grateful to writers like Andrew Delbanco for producing works that illuminate the costs of squandered human potential. As Delbanco writes, "It is often students of lesser means for whom college means the most—not just in the measurable sense of improving their economic competitiveness, but in the intellectual and imaginative enlargement it makes possible" (p. 172). That is certainly true. But public university instructors—that vastly larger force—will need to look beyond the masterfully-conducted seminars of a few exceptional denizens of the Ivy Islands to find all the instruments they need to help their students construct enlarged selves in the threatened classroom settings whose stewardship, for the time being, remains in their hands.

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