My thanks to AAC&U for the invitation to address you this evening. I want to speak to you tonight as a colleague, both as a member of the academy for 35 years as faculty, dean, and president, and also for fourteen years over two separate stints as a member of the AAC&U board of directors, where I was privileged to see the development of many initiatives for curriculum, pedagogy, and liberal education that underlie this meeting of the Network for Academic Renewal. I will be making reference to various AAC&U studies because they have enriched our sense of what comprises college learning.

As a professor of English literature, I appreciate the allusion to Shakespeare’s *Tempest* regarding the Sea Change in Student Learning that serves as the theme of this conference. Yet in this context the term “sea change” strikes me as a carefully modulated understatement of how the form and substance of general education may be transmuted—for good or ill. The current disruptive transformations of higher education confronting us often have been described as a veritable tsunami that will wash away long-established edifices and leave behind a “brave new world” (a phrase also from Shakespeare’s *Tempest*). Whether that brave new world be paradise or dystopia, however, is for us gathered here tonight to determine.

I would like to begin by sketching one version of the post-tsunami world of higher education, one that has gained considerable visibility and momentum in the press. In a column this winter entitled “Revolution Hits the Universities,” Thomas Friedman declared his hope in
the reimagining of higher education through the proliferation of massive open online courses (or MOOCs).\(^1\) MOOCs and other emergent online technologies have the potential to make education accessible and affordable on an unprecedented scale. Writes Friedman, “I can see a day soon where you’ll create your own college degree by taking the best online courses from the best professors from around the world . . . paying only the nominal fee for the certificates of completion. It will change teaching, learning and the pathway to employment.” Higher learning need no longer be coincident with physical campuses, and an education can be comprised of the aggregation of credits ranging from online to classroom courses, certification for life and work experience, and completion based on competency exams.

The prospect is the ultimate democratization of higher education, where learning is freed from constrictions of locale and schedule, available at little or no cost, and organized about the individual’s interests and needs. Well and good, but where is general education in this brave new world?

Another enthusiast of this brave new world is Arthur C. Brooks, president of the American Enterprise Institute and former tenured professor at Syracuse University. He proudly cites his own undergraduate degree, earned in 1994 through Thomas Edison State College, “a virtual college with no residency requirements” that “banks credits acquired through inexpensive correspondence courses from any accredited college or university in America.”\(^2\)

Brooks writes, “I took classes by mail from the University of Washington, the University of Wyoming, and other schools with the lowest-priced correspondence courses I could find. My degree required the same number of credits and types of classes that any students at a traditional university would take. I took the same exams (proctored at local libraries and graded by

graduate students) as in-person students. But I never met a teacher, never sat in a classroom, and
to this day have never laid eyes on my beloved alma mater.” And I suspect that a concern with
general education played a minimal part in his course selections.

I admire Friedman’s social sagacity and respect Brooks’s self-directed achievements. But while I share with them a hope that emergent technologies and distance education can lower barriers to access and affordability that prevent so many from pursuing a college degree, let me enumerate three misgivings with regard to the nature of learning in the brave new world they so enthusiastically endorse.

First, knowledge transmission and subject matter mastery are important components of education, but they are not the whole of education. Yet too often it is knowledge transmission that underlies what is sought by those who have recourse to online learning, and it is subject mastery that is assessed in order to gain academic credit. In one sense, this is nothing new: a hoary image of the academy is that of the “sage on the stage” passing on what is known to another generation of learners, and exams are occasions for regurgitating what was said by the professor.

However, it was also dissatisfaction with this model of learning that led to recurrent reforms in higher education. What concerns me is the implicit re-ascendance of this model as the essence of higher learning. At a time when higher education is criticized for being too expensive, too elitist, and too inefficient, when the political climate demands greater college completion rates and more accountability, higher education is being too frequently equated with knowledge transmission and acquisition because such an attenuated vision of what constitutes learning seems so readily achievable through the medium of emergent technologies.
I submit that those of us gathered here tonight are committed to a more expansive vision of what comprises higher learning. Imbedded in this more robust vision are reasons why a coherent approach to general education is needful. This conference is organized under the auspices of the Association of American Colleges & Universities, which has sought to enunciate four sets of essential learning outcomes that should characterize college study.³ Let me briefly rehearse the four. They include, first, study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts. Subject matter knowledge is important. But what we seek for our students is not only comprehension of a subject but also a sense of how different disciplines validate knowledge. One desired outcome of higher education is that students distinguish different ways of knowing. Creating knowledge in the sciences is different from creating meaning in literature; there are different methodologies for verifying insights in physics as opposed to psychology. Knowledge is not static, and to truly understand a subject is to understand the conditions under which our apprehension is modified by new discoveries and new interpretations. It is not sufficient only to master the current state of knowledge in the field.

Moreover, if college is preparation for career and life, knowing is not enough. A second essential learning outcome is that students need to be able to integrate and apply learning across areas of study to new settings and complex problems. Implicit in this outcome is that there needs to be coherence in the curriculum: how may learning across courses, within and beyond the major, and in general education, link up into a comprehensive sense of the world? Accumulating courses and credits does not guarantee coherence. Packets of knowledge attained by fulfillment of discrete course requirements are not equivalent to a curriculum.

Such integration and application are made possible by a third essential learning outcome: the development of intellectual and practical skills, including inquiry and analysis, critical and creative thinking, written and oral communication, quantitative literacy, information literacy, and capacities for teamwork and problem solving. These skills are developed in the course of mastering and demonstrating knowledge, but they also need to be cultivated directly as capacities in themselves, not simply as instruments for learning. For example, writing is not only a means of expressing what we know; the process of composition is arduous because it is a means of discovering what we think. Moreover, these skills often are fostered in situations beyond the classroom: the capacities for teamwork and problem solving, for example, may be most vividly realized in an internship or community service project. In the aggregate, these intellectual and practical skills are the keys to lifelong learning, and in a world where one-third of college graduates will work at jobs that don’t yet exist, they ultimately prove essential to one’s personal and professional re-creation.

The fourth essential learning outcome is the inculcation of personal and social responsibility. American higher education has a civic dimension, and at its fullest the academy educates not simply the intellect but the whole person for participation in democratic society and a global environment. It fosters community engagement, intercultural competence, ethical reasoning, and the capacity for lifelong learning. There is a social end to higher education: the rehearsal of students to live in community.

One foundational assumption underlying this meeting is that we must seek to realize all the essential learning outcomes for our students, and that our general education programs are an integral means to doing so. In our desire to realize greater access, affordability, and
accountability, let us not diminish what we expect students to learn in college. Knowledge attainment is a necessary but not sufficient end of higher education.

This brings me to my second misgiving. There is already considerable criticism, exemplified by Richard Arum and Josipa Roksa’s *Academically Adrift*, that many traditional college graduates demonstrate insufficient breadth and depth of learning and that they are ill-equipped to engage in critical thinking, complex reasoning, and written communication.\(^4\) I am concerned that emergent technologies don’t yet adequately address this criticism and may, in their current state of development, actually exacerbate the situation.

*Academically Adrift* identifies students as being deficient in some of the essential learning outcomes I just enumerated. Moreover, in a series of employer surveys undertaken by Hart Research Associates on behalf of AAC&U, employers were asked what learning outcomes should receive more emphasis in college.\(^5\) 89% cited the ability to effectively communicate orally and in writing; 81% cited critical thinking and analytical reasoning skills; 75% the ability to analyze and solve complex problems; and 68% the ability to locate, organize, and evaluate information from multiple sources. There is a convergence of thought among AAC&U, employers, and the authors of *Academically Adrift* as to what colleges graduates ought to know and be able to do.

There is also, for the organizers of this meeting, a clear sense of and growing evidence for certain pedagogies that best conduce to the realization of the essential learning outcomes. Drawing from work with the National Survey of Student Engagement (NSSE), George Kuh identified ten teaching and learning strategies that he denominated high-impact educational

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practices. They include 1) first-year seminars and experiences, 2) common intellectual experiences, 3) learning communities, 4) writing-intensive courses, 5) undergraduate research, 6) collaborative assignments and projects, 7) diversity and global learning, 8) service learning and community-based learning, 9) internships, and 10) capstone courses and projects. When done well, whether in the major, in general education, in special programs, or in the co-curriculum, they have been shown to have substantial educational benefits, and notably for traditionally underserved students.

Over my three decades in the academy, I have seen the lecturer model complemented with a rich variety of pedagogies. Instructors intersperse exposition with discussion; more frequent papers and quizzes have succeeded the traditional midterm, research paper, and final; students do collaborative projects as well as individual presentations; classroom activities lead to independent research and internships. Pursuing these strategies have resulted in the realization of essential learning outcomes for graduates who are prepared to do well for themselves, their employers, and their communities.

This then is my conundrum: the broad access to famous teachers and courses offered by emergent technologies is in itself no guarantee of quality learning. While online innovations potentially enable instructors to reach students by breaching traditional barriers of distance and time, knowledge presentation alone does not ensure that students understand, learn, and can apply that knowledge in new situations. Therefore to the extent that MOOCs and other forms of online learning don’t pursue the panoply of essential learning outcomes and high-impact practices I’ve described, they are not answers for the criticism that too many traditional college

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graduates already are ill-prepared. It does no good to take problematic models of higher education and proliferate them on line in the name of greater accessibility.

High-impact practices that foster deep learning characteristically emphasize recurrent interactions among students and between instructors and students. They typically require frequent assignments and prompt feedback. They focus on teaching the arts of inquiry, analysis, and problem-solving. And to be fair, MOOC developers are seeking to address some of these pedagogical challenges. Crowd-sourcing technologies can enable continuous participation in online discussion forums so that students can learn from one another and instructors can re-gauge presentations as questions occur. Rubrics for tests and homework can permit both students and course evaluators to assess the work of individual participants. But the legitimacy of online innovations ultimately must be tied to the same criterion by which traditional colleges and universities should be adjudged: what is the quality of the learning that takes place?

We surely will see future models of blended education that include MOOCs and other online innovations combined with face-to-face interaction. Recently I asked a chemistry professor at Ursinus whether he could foresee using a MOOC presentation in one of his courses. Yes, he could, but he also thought that virtual could not substitute for a real-life chemistry lab. I asked why a virtual lab could not guide students to the appropriate learning. He replied, “Because there are many reasons why a lab experiment can fail, including an insufficiently cleaned beaker with residue that contaminates the results.” There is a real-world serendipity at play that leads to learning. In that vein, for the moment it is difficult for me to imagine the efficacy of a purely online education for preparing teachers and nurses, dancers and engineers. Even for liberal arts majors, there are high-impact learning experiences that require face-to-face interactions and out-of-class experiences. In an Eduventures reply to the Thomas Friedman
column with which I began this talk, Melanie Andrich notes, “MOOCs will evolve undoubtedly beyond what we can anticipate. But we are creating potential harmful confusion by conflating MOOCs, which function most elegantly as just-in-time learning modules and lifelong learning supplements, with an articulated course pathway and progression scaffolded by co-curricular learning resources.”

Higher learning still needs thoughtfully-structured curricula buttressed by resources beyond the classroom.

The brave new world envisioned by Friedman and Brooks is upon us, but the sea change will most threaten those systems where learning is little more than knowledge transmission. I believe that there will be continuing demand for institutions that have embodied essential learning outcomes and high-impact practices in their educational strategies.

However, this conclusion points to a co-existence of alternative models that gives rise to my third misgiving. One can readily concede the robustness and desirability of essential learning outcomes and high-impact practices within a coherent curriculum. Yet in the name of access and affordability one could argue for more attenuated learning models for those who don’t have the time and money for the robust model of higher education. What I fear is a two-tier philosophy of education: one for those who can afford the robust model of liberal education or who are underwritten by grants; and a second system for the others, the adult learners, the students of modest or no means, and the educationally uninformed, who look to higher education simply as a means to certification for employment.

What concerns me is that such a prospect for higher education will reinforce the deepening fault line between the nation’s rich and poor. Two centuries ago, the British author and statesman Benjamin Disraeli wrote of a similar divide in England, describing “Two nations between whom there is no intercourse and no sympathy; who are as ignorant of each other’s

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habits, thoughts, and feelings, as if they were dwellers in different zones, or inhabitants of different planets.”

The promise of America has been that one is not trapped by social class. One can rise through industriousness and education. Beginning with the GI Bill after World War II and spurred by federal and state support of education in the 1950’s and 1960’s, college became a commons for social and cultural mobility. Can it remain so?

It is the determination of the AAC&U Board that it must. In 2010, the directors issued a statement noting, “A great democracy cannot be content to provide a horizon-expanding education for some and work skills, taught in isolation from the larger societal context, for everyone else. Yet this is what the postsecondary system, viewed as a whole, provides now. And this is what we must work together to change... It should not be liberal education for some and narrow or illiberal education for others.” At this past January’s annual meeting, the Association announced a new strategic plan for 2013-17, accompanied by a slightly revised mission statement that includes a commitment to “liberal education and inclusive excellence.” By this term we acknowledge the necessity to provide a rigorous liberal education to all students who seek to learn from us. In our quest to make higher education available to the many, we must not lose sight of the quality of our degrees. In maintaining a robust vision of what constitutes quality, we can’t settle for delivering quality only to a few.

In reflecting on the current enthusiasm for emergent technologies, I am not denigrating their power pedagogically to enhance college teaching and learning. My misgivings have to do with the narrowing and attenuation of what counts for higher learning that may accompany the

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9 Benjamin Disraeli, *Sybil*, 1845, Book 2, Chapter 5.
uncritical adoption of these new technologies. Amid my misgivings, I’ve also discussed the elements of what counts as a more robust model of liberal education, rooted in essential learning outcomes and high-impact practices. It is within this larger frame that our deliberations on general education and assessment at this conference must be embedded. At a time when credentialing for careers threatens to make afterthoughts of general education and humanistic studies, we must do general education today in a more thoughtful and comprehensive way than ever.

In my “brave new world,” I see general education at each college or university rooted in a coherent curricular vision rather than a checklist of credits. Faculty must do the hard work of discerning what they believe that all students at their institution should be able to know and do. Such knowledge and competencies should determine the structure of requirements, not advocacy for departmental turf. An agreed-upon set of common requirements should span majors, programs, and even individual colleges within a university. At Butler University, the general education program was the same for all 4,100 undergraduates, whether they were in the College of Business, Communication, Education, Health Sciences, Performing Arts, or Liberal Arts and Sciences. Implicit in such a general education program is that the faculty has formulated a common vision of an educated person. Faculty members are not only representatives of disciplinary expertise; they are educators. They teach not only their subjects; they teach students. And the curriculum, particularly in general education, is the collective autobiography of the faculty, an expression of what the institution declares important for their graduates to have mastered.

In my “brave new world,” there also ought to be continuities between general education in the first two years of undergraduate work and the latter two years, linking, for example, first-
year seminars and experiences with capstone courses and projects in the major. Let explorations of topics and issues in first-year general education courses be reprised as part of a senior year course in each department or in a general education capstone requirement. Such bookending enables students to return to objects of reflection in the first-year and think about how their understandings and perspectives have matured.

In my “brave new world,” we have opportunity, if we found our efforts on the essential learning outcomes and high-impact practices, to take general education beyond the classroom. Let me offer a local example. Ursinus College has a two-semester common syllabus course required of all first-years entitled the Common Intellectual Experience, or CIE. Taught by faculty from all academic disciplines, it rehearses three perennial questions: What does it mean to be human? How should we live our lives? What is the universe and how do we fit into it? Students and faculty grapple with texts that have addressed these questions and use the readings as lenses to bring their own lives into focus. This common intellectual experience spawns several kinds of learning communities at the College. The most basic is the solidarity among members of the first-year class, who in discussions in and out of class have common reference points that serve them throughout their time at Ursinus. The texts and lessons of CIE become a cultural shorthand for how they might understand and conduct their lives. This common cultural base is reinforced by the fact that 95% of our students live on campus, and all first-years are housed together. In 2012, the College established a CIE Fellows program, where upperclass students work with residential assistants to promote interchange and activities in the first-year houses. Issues of civil disagreement and community, of personal freedom and social responsibility, are linked with the vicissitudes of learning how to live together. There is
continuity between academic study and student life, between individual learning and the
rehearsal of community.

Student learning communities are paralleled by the CIE faculty learning community.
Each first-time instructor is partnered with two veteran instructors to form a triad for support. In
addition, the CIE staff meets weekly to examine the text being studied. The constant
reconsideration of texts and guiding questions has kept the course vital. Because of the faculty-
wide commitment to the Common Intellectual Experience, Ursinus professors are accustomed to
crossing disciplinary boundaries and supporting students as they link learning across courses into
a comprehensive sense of the world. This has had two benefits: first, faculty are oriented to
student achievement, and potentially onerous discussions of curricular revision, outcome
assessment, and supervision of experiential education are at least entertained with cautious
openness to the degree that they are justified as enhancing student achievement. Second, as a
small college, Ursinus is adjusting to advances in knowledge by becoming more interdisciplinary
and supple in its approach to majors and programs. In no small way, the familiarity and trust
engendered by working with colleagues across departments has enabled faculty members to
cooperate with one another on curriculum reform and successful grants that call for integration,
such as science and public policy or promoting student diversity in STEM disciplines.

In my “brave new world,” higher education can no longer be an “ivory tower” removed
from the “real world.” If we aspire to prepare students to be contributing citizens and leaders in
a global society, there needs to be an interpenetration of town and gown, of classroom and
applied learning. Students should be familiar with and to the employers, NGO’s, and civic
organizations in the area. Our local communities should be laboratories for research,
collaborative assignments, service learning, and internships. At Butler, the College of Business
required two faculty- and employer-supervised internships as a condition for graduation. At Ursinus, each student is required to do an Independent Learning Experience or ILE, whether an internship, research experience, study abroad, or student teaching. Many students do more than one ILE, whether multiple internships or semesters in a lab. Others seek to combine internships, research, or student teaching with study abroad.

As high-impact practices extend teaching and learning beyond the classroom, in my “brave new world” the importance of internship coordinators, international study advisors, civic engagement directors, and employers come to the fore. Faculty find themselves partnering with student affairs professionals, community organizers, and workplace supervisors in structuring experiences and assessments for students. Such efforts call for more coherence and coordination rather than less. Ironically, what expedites such coordination and recordkeeping is emergent technology. Students build e-portfolios of their experiences in college. Advisors can access databases and communicate with each other on line. In my “brave new world,” such technology supports the creation of a more comprehensive narrative of student achievement, where the grade transcript is only a part of the record of accomplishment.

In my “brave new world,” robust, coordinated learning in and beyond the classroom will also enable institutions to set graduation requirements not only by courses taken but also by designating activities and competencies. Learning doesn’t have to be measured by seat time. At Wagner College, the faculty is currently working to make a portion of the graduation requirements competency-based, developing, for example, rubrics to assess civic engagement experiences. At Ursinus, as previously mentioned, the Independent Learning Experience requires an internship, research experience, study abroad, or student teaching, activities that are separate from formal course requirements. At the same time, these activities and assessments are
part of a larger vision of what constitutes essential student learning, not simply alternative pathways to give credit for the experience in lieu of taking courses.

In sketching out this alternative “brave new world,” I’ve offered six characteristics of what might distinguish institutions devoted to the essential learning outcomes and high-impact educational practices. They should

1) Be founded on a coherent curricular vision of what students should know and do
2) Create continuity between general education and advanced work
3) Extend education beyond the classroom to on-campus learning communities and off-campus experiences
4) Involve administrators, staff, and employers in the coordination and assessment of learning
5) Use technology to support advising and to create student e-portfolios that offer fuller accounts of student achievement
6) Construct graduation requirements that include assessment and credit for competencies and activities as well as courses.

My examples have been local, and necessarily so. For my final point, I want to make a brief for place-based learning. One of the essential learning outcomes is to prepare students for participation in democratic society and a global environment, to be citizens and leaders in human community. I wonder if in the current wired environment, we are not glibly confounding connectedness with community. Many of you may be familiar with the Toyota Venza commercial in which a daughter notes that she has 687 friends on Facebook compared to her
parents’ nineteen, and she laments that they may be antisocial. The irony is that the parents are trail biking with friends while she is on line.

I recently received a thoughtful email from an Ursinus alumnus who has permitted employees to work on line from home. He observes that of late many prefer to come into the office. He concludes, “Technology has given us a plethora of opportunity for home based work but most of us want socialization that we find in the workplace. For most employees the traditional workplace in our knowledge based economy is preferred like a place based campus by students.”

We want our students to practice the arts of community. At a residential college, we want our students to be comfortable being alone with their own thoughts, to take opportunity for reflection. But we hope that they are not too often lonely and that the community of teachers and peers will always be a fertile environment for relationships. By contrast, in the wired world of social networks, we have a generation that can choose never to be alone. Nonetheless, I worry about the loneliness of the long-distance learner.

A recent New York Times op-ed cited studies that community college students enrolled in online courses were more likely to withdraw or fail, and less likely to earn degrees or transfer to four-year colleges, than those in traditional classes.12 Perhaps students taking online courses had more life challenges that precluded their enrolling in traditional classes, but I wonder about the role that community support from teachers and peers plays in persistence in courses and in degree completion.

We are embodied human beings. We cannot be human in general: we express our humanity in particular culturally-mediated ways. Language is a quintessential human capacity, but no one speaks “Language,” we speak English, or Chinese, or Swahili. So too, I think, with

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community. Healthy communities may have characteristics in common, but the building of community is a local venture.

Although we traditionally grade each student individually, increasingly we know that learning is a communal activity. In the academy, we teach in community because no one of us in pedagogical style, temperament, or time of life, can be successful in teaching every student. My expectation is that the students I fail, my colleagues can uplift, and the students they may be unable to reach, I may touch. In turn, we increasingly ask our students to do group work because the nature of modern professions and research depends on individuals of diverse perspectives and expertise contributing their skills to a common project. We know that students can teach one another, and they teach us.

I began this address by noting that emergent technologies have eased constrictions of time and place to learning. I end by noting that aspects of higher learning may be best realized by being sensitive to the human need to be in community, something that is time- and place-specific. Students need to be known by name and face. They need to rehearse the stories of their lives in community. Students leave home for college often at a period of their lives in which they change at a greater rate than any comparable period except infancy. College can be a second home, an alma mater where they find or develop their best selves. For the ultimate sea change we seek is what occurs in the lives of our students.

Aldous Huxley used the phrase “brave new world” ironically to refer to a dystopia. In The Tempest, it is Miranda who uses the phrase to voice a vision of what human community might be, what I would like us to be thinking at commencement as we watch our students receive their degrees: “O wonder!/ How many goodly creatures are there here!/
How beauteous mankind is! O brave new world/ That has such people in’t.” This is our dream of the academy,
and may we in these tumultuous times hold on to this vision and earnestly work to make it real.

Thank you very much.