

Introduction

On Innovation in Higher Education

Teresa Sullivan was the first victim of the “Big One.”

In 2012, Sullivan was forced to resign as president of the University of Virginia by the board of visitors, specifically by Rector Helen Dragas and Vice Rector Mark Kington. The public reason for the dismissal stated, “The Board feels the need for a bold leader who can help develop, articulate and implement a concrete and achievable strategic plan to re-elevate the university to its highest potential. We need a leader with a great willingness to adapt the way we deliver our teaching, research and patient care to *the realities of the external environment*” (emphasis mine).¹ The “external environment” here meant the sudden rise in online education made possible by MOOCs (massive open online courses). Sullivan was moving too slowly—“deliberately” was the term she preferred—and the board of visitors felt that Virginia simply did not have the time to wait: UVA was facing an “existential crisis.” Online education had been a reality for at least two decades, but it was usually associated with community colleges, for-profit education companies, and other lower-tier colleges and universities.

MOOCs, on the other hand, were developed at prestigious schools, such as Stanford and Harvard Universities. Sebastian Thrun, one of the first Stanford professors to develop a massive open online course in computer science, suddenly found that tens of thousands of students signed up for his course. Venture capitalists saw enormous potential in this model of delivery, and soon Thrun left Stanford to start a new company, Udacity, that would deliver MOOCs in a wide number of subjects. At about the same time, Harvard and the Massachusetts Institute of Technology (MIT) launched a similar initiative, edX, which featured open online courses that also drew thousands of eager students from around the globe.

Several University of Virginia Board of Visitors members expressed alarm at the changes to the higher education landscape that MOOCs apparently represented. Sullivan was urged to watch a video by Thrun about Udacity, which was “a signal that the on-line learning world has now reached the top of the line universities and they [Virginia] need[ed] to have strategies or [would] be left behind.”² An email that circulated among the board of visitors asked, “How are we thinking about [online learning] at UVA? How might it lower our costs, improve productivity and link us to a group of students we couldn’t afford to serve (maybe more kids from the state to please the legislature) . . . maybe more second career grads?”³

Sullivan was moving too slowly, and the MOOC revolution would soon leave many higher education institutions in its wake if immediate strategic action was not taken. Online education posed no challenge to UVA as long as only the University of Phoenix was delivering it. But once Stanford, MIT, and other upper-tier institutions were leading in this area, Virginia had little choice but to join in. An editorial in the *Wall Street Journal* pronounced, “The nation, and the world, are in the early stages of a historic transformation in how students learn, teachers teach, and schools and school systems are organized.”⁴ “What happened to the newspaper and magazine business,” observed David Brooks in a *New York Times* op-ed, “is about to happen to higher education: a rescrambling around the Web.” Brooks said that a “campus tsunami” was engulfing higher education.⁵

Many in higher education had been anticipating the Big One to strike for well over a decade. The “Big One” is a reference to the massive earthquake that is destined to hit California and lead to unimaginable levels of destruction. Residents await every tremor and wonder, “Is this it? Is this the Big One?” Higher education has its threatened Big One as well. In 1997, management guru Peter Drucker told *Forbes* interviewers that higher education as currently organized was unsustainable. “Do you realize that the cost of higher education has risen as fast as the cost of health care?” Drucker observed. “And for the middle-class family, college education for their children is as much of a necessity as is medical

care—without it the kids have no future. Such totally uncontrollable expenditures, without any visible improvement in either the content or the quality of education, means that the system is rapidly becoming untenable. Higher education is in deep crisis.” Technology would help usher in a new model, a new way of delivering higher education. “Already we are beginning to deliver more lectures and classes off campus via satellite or two-way video at a fraction of the cost. The college won’t survive as a residential institution. Today’s buildings are hopelessly unsuited and totally unneeded. . . . It took more than 200 years (1440 to the late 1600s) for the printed book to create the modern school. It won’t take nearly that long for the big change.” These observations led to Drucker’s big announcement:

Thirty years from now the big university campuses will be relics. Universities won’t survive. It’s as large a change as when we first got the printed book.⁶

Part of what made Drucker’s reputation as a management guru was that he had been proven right about so many changes to the modern world. His pronouncements about the next thirty years, therefore, were noted by many in higher education, who waited with heightened expectation for the Big One that was finally going to disrupt higher education. Every technological tremor led observers to wonder whether Drucker’s Big One had finally arrived.

Also in 1997, Clayton Christensen published *The Innovator’s Dilemma*, which quickly became required reading among technology entrepreneurs. Mature industries and incumbent businesses in those industries are capable of continuing success via incremental innovations. “Existing institutions find [major] innovation difficult because their structures and norms are oriented around doing, and even improving, what they already do,” writes Johann N. Neem. “Agile new institutions can enter the market because there is demand for more suppliers and they are not beholden to the past.”⁷ Mature industries are ripe for what Christensen termed “disruptive innovation”: new advances, usually at the lower end of the market, that nevertheless transform whole industries. Those

successful firms no longer appear so successful since they cannot match the industry-upending innovations of the newcomers.

The 2006 Spellings Report (policy recommendations from the Commission on the Future of Higher Education led by US secretary of education Margaret Spellings) announced, “American higher education has become what, in the business world, would be called a mature enterprise: increasingly risk averse, at times self-satisfied, and unduly expensive. It is an enterprise that has yet to address the fundamental issues of how academic programs and institutions must be transformed to serve the changing educational needs of a knowledge economy. It has yet to successfully confront the impact of globalization, rapidly evolving technologies, an increasingly diverse and aging population, and an evolving marketplace characterized by new needs and new paradigms.”⁸ By 2013, Christensen was similarly proclaiming that higher education was one of those mature industries that was ready to be upended by disruptive innovation.⁹ “I think higher education is just on the edge of the crevasse,” he told *Wired* magazine. “Generally, universities are doing very well financially, so they don’t feel from the data that their world is going to collapse. But I think even five years from now these enterprises are going to be in real trouble.” Online education was the source of this disruption. “It will take root in its simplest applications, then just get better and better. You know, Harvard Business School doesn’t teach accounting anymore, because there’s a guy out of BYU whose online accounting course is so good. He is extraordinary, and our accounting faculty, on average, is average.” Some universities would no doubt survive the disruption that was heading their way. “Most [universities] will evolve hybrid models, in which universities license some courses from an online provider like Coursera but then provide more-specialized courses in person.”¹⁰ The language of disruptive innovation began to swirl around higher education. Mark Cuban was among the celebrity entrepreneurs who began investing in higher education start-ups, a further signal that disruptive innovation was about to be unleashed.¹¹

Richard DeMillo was among those observers who anticipated technology having disruptive effects on the landscape of higher education.

“The rush to define the twenty-first-century university is driven by a combination of political and economic factors. It is fueled, above all, by *enabling technology curves*, the growth-driven law of the Internet era that describes the annual doubling of capability and capacity for equal costs. Paradoxically, mainstream universities—where much of the technology originated—have been slow to embrace these technologies, even as they became ubiquitous in other sectors of the economy.”¹² DeMillo wrote these words a year before Sullivan resigned from UVA, but he could have been voicing the concerns of the board of visitors. However, DeMillo did not believe that institutions like UVA would be most affected by the enabling technology curves. DeMillo argued that universities in the United States stratified into three levels. At the top are elite universities, which “are at a tremendous advantage as they compete for students, money, and global prestige.” At the bottom are for-profit universities, which DeMillo believed (in 2011) were primed to be the disruptive force: the lower-end market of higher education, if you will, that would unleash disruptive innovation. “Most colleges and universities,” concluded DeMillo, “lie in the *Middle*, a land where the resources of a top-ranked school are just out of reach, a region where they find themselves unable [to] find better ways of using what money they have to become more competitive. In American higher education, wealth flows to the top and bottom strata, but not the Middle.”¹³

Universities in the middle were the most at risk of disruption in the higher education marketplace, and it was the rise of the for-profits—especially their effective use of technology—that was the main threat. “With their ability to scale to match demand, deliver consistent value for market process, and place graduates in attractive first jobs,” argued DeMillo, “For-Profits are clearly poised to attract what [University of Phoenix president Bill] Peppicello sees as a large number of capable students—not only the nontraditional students who are shopping for part-time degree programs, but the increasing numbers of applicants for traditional institutions who prefer the learning experience, price, and employment prospects of an institution that is run like a business.”¹⁴ Again, this was written in 2011, when the for-profits

were on the rise and seeing enormous increases in their enrollments. These predictions seem incorrect today, as for-profit enrollments have plummeted, largely as a result of increased regulation by the Obama administration. It is very likely the for-profits will rise again, since we can expect a relaxation of these regulations under the Trump administration and a Republican-controlled Congress. But DeMillo's point was that not all universities would be so impacted by technological disruption. "In short, the overlap between the Middle and the For-Profits should concern leaders of traditional universities. . . . Colleges and universities in the Middle are completely exposed to the threat of proprietary universities. . . . In order to compete for these students, an institution in the Middle needs two things: an equally compelling value proposition and a way to deliver it at a reasonable cost."¹⁵ Lower-cost delivery was to come, presumably, via technology. DeMillo and many other observers believed that technological disruption in higher education was only a matter of time.

And then MOOCs hit the scene.

Surely, this was the Big One that Drucker had anticipated. Indeed, for a time it seemed that MOOCs were going to fundamentally change higher education in the way Drucker had predicted. A few prestigious universities would make their courses available free for anyone—and why not: their professors were tops in their field. Why would students want to take a class with a second- or third-class professor when they could learn from the best in the world? Some observers noted that MOOCs might be adopted by smaller institutions or institutions in the developing world; the video lectures would be supplemented by local faculty, who would lead discussions and manage classes taught by an MIT luminary. Maybe some universities would survive—Harvard, MIT, Stanford—but many other institutions of higher education would not be able to compete in such an environment.



It is debatable whether MOOCs have had the transformative, disruptive, tsunami- or earthquake-like effects that so many expected. We still have MOOCs, of course: Georgia Tech, for example, teamed up

with Udacity and AT&T to develop an online master's degree program in computer science that is dependent on MOOCs and seems to be successful.¹⁶ But many of the MOOCs today are neither massive nor open, and they have not turned traditional campuses into relics. At the height of MOOC hysteria, I was invited to give presentations on the meaning of the MOOC phenomenon. I suggested that the idea of upper-tier universities giving away all of their courses for free via MOOCs simply was not a sustainable model, a lesson the newspapers learned in the 2000s, when many of them gave away all of their content for free and then determined there was no way to monetize that practice. Universities would not give away courses, no matter how disruptive the practice might be.¹⁷ I often concluded these presentations with a prediction: in ten years, we would not even be talking about MOOCs—and certainly not in a way to suggest that MOOCs had disrupted higher education.¹⁸ Indeed, Sebastian Thrun himself seemed to be walking back the disruptive power of MOOCs by 2013. “We were on the front pages of newspapers and magazines, and at the same time, I was realizing, we don’t educate people as others wished, or as I wished. We have a lousy product,” Thrun told *Fast Company*. Indeed, the magazine wondered whether “Thrun might be giving up the moon—free education for all! Harvard on a piece of glass!—in favor of something far more pedestrian. It will be, Thrun admits, ‘the biggest shift in the history of the company,’ a pivot that involves charging money for classes and abandoning academic disciplines in favor of more vocational-focused learning.”¹⁹ Udacity remains a thriving company, but traditional, incumbent universities remain standing in great numbers.



Two weeks after she was forced to resign—after howls of protest from faculty, students, and alumni—Teresa Sullivan was reinstated as president of UVA. What did the Sullivan affair teach us about disruptive innovation in higher education?

In the first place, MOOCs were not the Big One. Online education is certainly having an effect on higher education outside of the for-profits. Nonprofit institutions, such as Western Governors Univer-

sity and Southern New Hampshire University, have thriving online programs, and for many other institutions online programs are an important feature of their offerings. But traditional campuses lying in ruins simply has not come to pass (although we still have eight years left in Drucker’s prediction). The for-profits have not disrupted higher education in the manner DeMillo predicted, although a new kind of for-profit entity—the prehire training company—might just have that effect. But Harvard, Stanford, and a few other elite institutions providing MOOCs for everyone is a model that shows little sign of appearing. A more pertinent question in the wake of the Sullivan affair might be “Will there be a Big One at all?” Christensen’s theory of disruptive innovation has come under criticism,²⁰ and perhaps there is in fact no Big One to be anticipating.

Even if MOOCs have not rescrambled the higher education landscape and even if disruptive innovation has not yet occurred, there are challenges facing higher education. Responding to these challenges (and not to the assumption that technology will disrupt) may well prove a source of disruptive innovation in higher education. Perhaps innovation will arrive from other sources in response to other external threats whose answer is not technologically determined?



In describing higher education as a “mature” industry, one ripe for disruption, there is a presumption that institutions of higher education in the United States are lumbering dinosaurs, slow to change and reluctant to innovate. The history of higher education would suggest otherwise: innovation has occurred at several junctures, some examples of which might even be described as disruptive. In the mid-nineteenth century, the land-grant universities represented a significant innovation in higher education, from their source of support to the populations they served to the content of their curricula. In the early twentieth century, experimental institutions, such as Deep Springs College, Bennington College, Black Mountain College, and St. John’s University, proliferated. By the mid-twentieth century, the development of the community college similarly represented an innovation in accessibility

and affordability. “In the 1960s and early 1970s,” writes Joy Rosenzweig Klierer, “academic planners, reformers, countercultural gurus, faculty members, and students converged upon mountaintops, held retreats in the woods, and occupied classrooms and board rooms for days at a time, to give life to new and radically different institutions of higher education. Scores of innovative or experimental colleges and subcolleges burst onto the scene against a backdrop of social and political turbulence, heated and passionate student demonstration, rapid enrollment growth, economic upswings, and countercultural lifestyle exploration.”²¹ While many of these experimental institutions had short lives, there are a number that remain today, such as the College of the Atlantic, the New College of Florida, and the University of California, Santa Cruz.²² All were the product of a particular moment when the external environment placed demands on the university, demands that were met with innovative ideas.

The innovation that was the German research university similarly developed in the context of significant changes in the external environment. The crisis of the university of the eighteenth century—the external disruption that helped to birth the research university—was information overload. By the end of the eighteenth century, so many books had been printed that one scholar could not possibly master all the knowledge they contained. The eighteenth-century university was the home of the erudite, who “constituted a distinct social class or a traditional estate . . . which included university professors, as well as university-trained professionals. . . . Membership was based not on birth but primarily on knowledge of Latin and, usually, a university education.”²³ Indeed, German erudites tended to cluster in universities, where encyclopedic knowledge of the range of printed books was the expectation. An information explosion of printed materials challenged the ethos of erudition. “What was the purpose of the university in an age where print had reached a saturation point?” asks Chad Wellmon. “If universities continued to present students ‘the entire world of books, which already lies printed before everyone’s eyes,’ warned Fichte, they would soon become redundant. Universities had not figured out how

to respond to technological change, and if they could not distinguish themselves from printed books, they would fail.”²⁴ Technological change was threatening a crisis in the idea of the university, a parallel to our own digital moment not unnoticed by Wellmon.

The university as imagined by Kant and other philosophers and as put into practice by Wilhelm von Humboldt was to produce a new kind of scholar, a new “subject” in Wellmon’s terms. “The story of the German research university,” he writes, “has given us not just the ideals of academic freedom and the unity of teaching and research,” innovations in and of themselves, “it has also lent us the logic of intellectual specialization that continues to form the contemporary university.”²⁵ The ethos of erudition was replaced by the ethos of *Wissenschaft*. By the end of the eighteenth century, the term “science” had shifted its connotation from an individual mental trait to a body of objectively shared knowledge. “Once the unity of knowledge was grounded not in mental faculties common to all but in objectified systems of knowledge,” says Wellmon, “general access could not be presumed.” The new university enacted by von Humboldt would not be a place for the polymath or the erudite scholar who traversed any discipline across the encyclopedia of knowledge. “Instead, [knowledge] had to be cultivated through institutionalized habits, practices, and disciplines. Particular scientific cultures emerged that distinguished between [the] expert and the layman. Disciplinarity gradually arose in this context as a system for managing the distinct sciences and the people who labored within those sciences.”²⁶ The innovative German university existed as a way not only to manage objective knowledge, but to form a specific kind of student: this was a shift from the erudite to the “disciplined” subject.

The German university’s new *raison d’être* highlights the degree to which universities are sites for transformative experiences. What that transformation is can vary, but at its heart a university exists to transform subjects—be they students or faculty—such that they leave the institution a different person than when they arrived. This is not the same thing as saying the same person plus a new skill set, an attitude that

seemingly defines the nature and purpose of higher education today. I quote at length the computer scientist Joseph Weizenbaum on the university as a transformative experience:

The function of a university cannot be to simply offer prospective students a catalogue of “skills” from which to choose. For, were that its function, then the university would have to assume that the students who come to it have already become whatever it is they are to become. The university would then be quite correct in seeing the student as a sort of market basket, to be filled with goods from among the university’s intellectual inventory. It would be correct, in other words, in seeing the student as an object very much like a computer whose storage banks are forever hungry for more “data.” But surely that cannot be a proper characterization of what a university is or ought to be about. Surely the university should look upon each of its citizens, students and faculty alike, first of all as human beings in search of—what else to call it?—truth, and hence in search of themselves. Something should constantly be happening to every citizen of the university; each should leave its halls having become someone other than he who entered in the morning. The mere teaching of craft cannot fulfill this high function of the university.²⁷

For Weizenbaum, the search for truth is the mission of the university, but a more fundamental role for the university is ensuring that everyone who enters “become[s] someone other than he who entered.” That person might be searching for truth, for erudition, or for a disciplined mind.

The university is more—much more—than simply a transactional exchange: I pay you tuition, you certify my skills. In the German university as enacted by von Humboldt, one left the university a different person, transformed into a disciplined subject. The threat posed by the external environment in the German case was indeed an existential one: Could the university continue to exist in its present form given the changes occurring in the external environment? That is, of course, the same question posed by the board of visitors at UVA, but its re-

sponse was not to innovate around a new kind of transformational experience, but rather to innovate around a transactional exchange.



I would submit that truly disruptive innovation in higher education comes with changes in the nature and purpose of those transformative experiences. Too many examples of what passes for innovation in the twenty-first century—MOOCs especially—focus on transactions, on questions of delivery.²⁸ Anyone seeking innovation in higher education today should concentrate on the kind of transformational experience it enacts.

The problem is not that universities are lacking in innovation, but rather that they suffer from a poverty of imagination of what that innovation might be. “This is an existential moment for universities,” writes the philosopher of higher education Ronald Barnett, who invokes language similar to that of the board of visitors. But Barnett sees a very different existential moment. Will institutions evolve into technologicalized, market-driven “entrepreneurial universities”?²⁹ Or are there other possibilities for the university beyond what Drucker and others have predicted? “All systems of higher education across the world are moving inexorably in the direction of the marketised university,” claims Barnett. “Consequently, the pool of ideas through which the university is comprehended is shrinking.”³⁰ Indeed, the main existential crisis facing the university is a poverty of ideas about what universities can become. Keri Facer laments, “The educational imagination of the last two decades has been dominated by one particular vision of the future, a vision of a global knowledge economy fuelled by international competition and sustained by digital networks. This vision has driven investment in new technologies, new approaches to teaching and learning, new education industries and massive school rebuilding programmes around the world. This vision has promised students and nations that with enough education, creativity and new technology, their futures will be secure.” That vision, in Facer’s opinion, “can no longer be considered either robust or desirable enough to act as

a reliable guide for education.”³¹ We must look elsewhere, more broadly and with greater imagination, for potential sources of innovation.

“Ideas of the university in the public domain are hopelessly impoverished,” Barnett emphasizes, echoing Facer.

“Impoverished” because they are unduly confined to a small range of possible conceptions of the university; and “hopelessly” because they are too often without hope, taking the form of either a hand-wringing over the current state of the university or merely offering a defence of the emerging nature of “the entrepreneurial university.” Against this background, the questions arise as to what, if any, are the prospects for imagining the university anew? What role might the imagination play here? What are its limits and what might be its potential for bringing forward new forms of the university? This then is the problem before us: the problem of the place of the imagination in developing the idea—and the institutional form—of the university.³²

Part of the hopelessness of our current ideas about the future of universities is not only because of the paucity of fresh ideas, but because the ideas that are publicly discussed “are being driven forward with such determination that it may appear that ‘there is no alternative.’”³³ For Barnett, there are indeed alternatives, if we only imagine the possibilities. “The entrepreneurial university is not the end-point of the unfolding university,” he concludes. “There are choices before it.”³⁴

To envision those choices, Barnett urges us to employ our imaginations productively to generate “a proliferation of ideas of the university.”³⁵ Using our imaginations allows us “to open up a gap, a gulf or even a chasm between what is and what might be. . . . In turn, [imagination] can show that the corporate university, the entrepreneurial university, the marketised and the bureaucratic university are not the only available representations of the university.”³⁶ While Barnett is not directly addressing Drucker or others who have predicted disruptive innovation to higher education, his observations highlight the degree to which the presumptive MOOCification of higher education represents only

one future path, one direction that disruptive innovation might—or must?—take. Barnett, instead, asks us to consider multiple possibilities. There is a wide variety of possible innovations, especially around reimagining the purpose of the university itself.

The products of our imaginative ideas about the future of the university are what Barnett terms “feasible utopias.”

[Feasible utopias] have four significant features. First, they are utopias. They are almost certainly not going fully to be realised. Second, they are *feasible*: that is, in being utopian, they are not fanciful. There are sufficient exemplars *already present* that show that these utopias *could* be reached. Third, they contain both optimism and pessimism: they reveal positive possibilities in our present situation but they are confronted with forces in the world such that their coming into being is extremely unlikely. Lastly, utopias are not necessarily all to the good, even if they were realised. As utopias, they look forward to situations that would be mostly beneficial but, as utopias, they often harbour extreme hopes. Dystopias lurk within utopias.³⁷



In this book, I have taken up Barnett’s challenge and employed my imagination to generate ideas about future forms of the university, alternatives both to our current practices and to the narrowly defined, technologically delivered university. What follows are ten feasible utopias; I believe that each has the potential to be enacted. (Indeed, I was approached by a social entrepreneurship organization to develop one of these alternative universities.) Each of my descriptions of these feasible utopias may be read as an initial blueprint or an early stage of a business plan—to borrow the language of entrepreneurship—that I hope to one day put into practice. I fully expect to found all of these as fully realized, actual universities.

Each chapter describes one alternative university, including a description of its broad contours and main features. The ten alternative universities are organized into four parts.

Part I: Organization. The three alternative universities proposed

here are distinguished by their organizational forms—specifically, the way that knowledge is categorized and ordered—and by their differences from the way most universities are organized today. **Platform University** is structured like a multisided platform. In business, a platform is an organization that does not sell or produce anything but instead exists only to connect buyers and sellers. A platform is also a social form that facilitates interactions between people; it is agnostic about the nature of those interactions. (The Athenian agora would be an example of this kind of platform.) Since it does not have an overarching administrative hierarchy, Platform University is organized and managed organically, with decisions arrived at through the unregulated interactions of teachers and students.

Chapter 2 describes a system of higher education made up of thousands of small **Microcolleges**. A Microcollege consists of one professor and twenty students. The curriculum and pedagogical philosophy of each Microcollege is as unique as the professor who leads it: an architect, a poet, an entrepreneur. Faculty leaders establish their Microcolleges in a range of settings: urban, rural, office parks, cultural institutions. Each specific location helps to shape the underlying pedagogical and research philosophy.

Unlike the typical policy institute, which brings together social scientists and scholars of business and international relations, the **Humanities Think Tank** is staffed and led by scholars from the humanities disciplines: literature, history, religious studies, art history, philosophy, and so on. The researchers at the Humanities Think Tank ask questions of interest to a wider public and contribute to a broader public discourse, but unlike the traditional public intellectualism of humanists, the knowledge produced is intended to influence policy-making: its audience is a very specific kind of “public.” The knowledge produced at the Humanities Think Tank is not meant to be contemplative—it is not art for art’s sake—but is intended to produce change in the world. The audience for the think tank’s work includes humanities scholars, government officials, policy-makers, corporations, nongovernmental organizations (NGOs), and the military.

Part II: Apprenticeship. Both of these alternative universities are based on the idea of substituting classroom instruction with experiences in real-world settings, led by practitioners. Students learn by doing, but they also receive a broad, liberal education that develops a wide set of intellectual skills. Chapter 4 describes a scenario where work is no longer tied to location, and so **Nomad University** is not grounded in a single site. Indeed, the physical location shifts around the world from course to course, from year to year. This university is organized like a series of gap-year experiences, but rather than seeing these as preparatory to a university experience, students engage in a series of eight to ten gap-year courses *as* the university experience. Students arrive at a site and work under the guidance of a faculty member on a specific problem, while immersing themselves in the local culture. Then, after a six- to eight-month stay, the students disperse, heading off to other experiences with other faculty in other locations with new sets of students. In addition to acquiring a broad set of skills, students gain an “education in place.”

The **Liberal Arts College** is centered on skills rather than subjects, specifically concentrating on what is necessary to participate in the modern economy. The curriculum of the Liberal Arts College is organized around seven broad intellectual skills: (1) complex problem solving, (2) sense-making, (3) making, (4) imagination, (5) multimodal communication, (6) cross-cultural competency, and (7) leadership. Students demonstrate mastery of each skill as a condition of matriculation. Instead of focusing on classroom-based coursework, students are placed in apprenticeships with local companies or organizations to develop each intellectual skill. For example, one student might intern for six months with a nonprofit and work on a project that develops her imagination. She then might engage in an eight-month apprenticeship with an engineering firm to work on making. In addition to providing the students’ training, the organizations that work with the Liberal Arts College also employ the graduates. These organizations can be confident that they are hiring people with the kinds of skills they have identified as necessary for the modern workplace.

Part III: Technology. In both of the alternative universities described in this part, technology plays a key role in education, but not as a system of delivery. Students learn how to interact with technology to engage in cognition. **Interface University** is based on the idea that the future of cognition will be a hybrid between artificial intelligence and human intelligence. Thinking will be a process of humans and machines working together to achieve cognitive feats neither could achieve alone. At this university, students take standard courses in standard majors, but in every case they learn to partner with algorithms. Students learn how to think *with* computers, using them not simply as a tool but as an extension of human cognition.

The **University of the Body** exists in a world of external media: information has moved off electronic screens and into the surrounding environment. The symbols and information in such a world come to us via all of our senses. We might manipulate information by great gestures or by small disciplined movements of our bodies. Information might come in the form of distinct smells or via sensations on our skin. Students develop the capacity to take in more and more information compared to what they can absorb from their eyes and ears alone: information arrives via all of the body's senses. The University of the Body develops in students the literacy skills necessary to decode and to compose in a world of externalized media.

Part IV: Attributes. The alternative universities explored in the first three parts of this book assume a particular kind of transformative experience. The three speculative designs in this part are focused on producing a certain kind of graduate; they are institutions that are transformative in specific ways. If some universities are about the preservation and transmission of knowledge, and research universities are about the discovery of knowledge, then the **Institute for Advanced Play** is about the generation of new and novel knowledge. Indeed, imagination is valued higher than knowledge. Play is a sophisticated cognitive activity, an important source of creativity and innovation, but adults allow themselves little occasion to play. Play is typically associated with the activities of children, yet the benefits of play extend to adults

as well. The Institute for Advanced Play is a kind of playground where adults can engage in serious play, where unplanned and unexpected insights are the results.

Every student at **Polymath University** majors in three very different disciplines. In addition to imparting a body of knowledge, a major is designed to teach the habits of mind of that particular discipline. Students are thus required to demonstrate mastery of three distinct habits of mind: they major in one of the sciences, one of the arts or humanities, and one of the professional disciplines. Innovative and creative ideas emerge at the boundaries between different fields, and students learn to negotiate those boundaries.

Just as the case study is the central feature of a business school education, the future scenario is the basis of study at **Future University**. A scenario is a plausible narrative of how the future might unfold; it is a description of the potential state of a complex system at some point in the future. Students at Future University live in the future, visualizing it in order to better design and build that future. The curriculum is balanced between pure futuring (exploring the future for no other reason than curiosity about what is next) and applied futuring, where the future is studied in order to anticipate change so that what is next might be managed or designed.



This book is an exercise in imagining alternative universities, an example of what Anthony Dunne and Fiona Raby refer to as speculative design: “to use design as a means of speculating how things could be.” Design can play a role in “facilitating alternative visions” and in “[opening] up all sorts of possibilities that can be discussed, debated, and used to collectively define a preferable future for a given group of people.” They point to the concept car as a kind of speculative design: designers promote new ways of thinking by presenting an alternative vision, even if the car itself never goes into production. In a way, then, what I present here are ten “concept universities.”³⁸ I present alternatives to the existing institutional forms of the university as a way to critique our current practices. Indeed, Dunne and Raby insist that one

goal of speculative design is to “unsettle the present rather than predict the future.”³⁹ Historically, utopias have often been as much about commenting on the present as they are about envisioning the future, and the ten designs presented here—whether they are unsettling or not—should also be viewed in that context.

But this project is also utopian in that, given our present circumstances, it will be a significant challenge to realize any of them. The current system of accreditation, for instance, would prove to be an insurmountable brake on most of these ideas. Polymath University, to take one case, has no provisions for general education courses. No regulator in the country would permit a university to receive accreditation without general education. Thus, to make Polymath University a reality would require a significant change in what an accreditor would permit. The Institute for Advanced Play eschews the idea of career preparation as an outcome. Given our current environment, where job preparation is widely viewed as the sole purpose of higher education, an institution devoted strictly to serious play would be an anomaly. Many faculty would refuse to work at Platform University because of its lack of tenure. “It will not be easy to transform the university from the inside,” predicts Cathy Davidson. “Many academics are traditionalists, and many institutions revere their traditions and are rewarded for them. They often reject innovation simply because it represents a departure from how things are done.”⁴⁰ In order for any of the designs proposed in this book to be actualized, I suspect we would very likely need to create a new institution, rather than expect to redesign or reorganize an existing organization, since resistance to change is endemic in higher education.

Another obstacle in the realization of these speculative designs is that there seems to be little appetite for developing universities that deviate so dramatically from the norm. “The similarity of college curricula comes from the twin power of competition and regulation,” observes John Lombardi. “Competition ensures that each college and university offers much the same curriculum to a common marketplace of students and parents seeking equivalent products. In competing for students, most institutions focus on minor forms of product differentiation,

image and presentation. Regulation reinforces this standardization of content through accreditation, a process that encourages or coerces colleges and universities to deliver remarkably similar undergraduate programs.⁴¹ Institutions of higher education are keen to benchmark other universities, emulate their peer institutions, and, as a result, all look alike. Each has the same offerings, each has the same goal, and their mission statements read very much the same. “The strategy of most schools is one of imitation, not innovation,” say Clayton Christensen and Henry Eyring. “Little-known and smaller institutions try to move up in the ranks by adding students, majors, and graduate programs, so as to look more like the large universities,”⁴² a process derisively called “Carnegie climbing,” referring to the organization that classifies institutions of higher education. In the end, all institutions strive to emulate Harvard, and in so doing look the same. In such an environment, innovation that seeks to create new transformative experiences appears risky and quixotic.

Barnett calls for nothing less than a new poetics of the university. Poets “imaginatively [bring] into being new worlds,” chiefly by employing metaphor. “The creation of new metaphors through which to comprehend universities, therefore, is one of the most powerful acts of the imagination.”⁴³ Each of the alternative universities in this book should be read as metaphors, and I hope that I have found “the conceptual and linguistic wherewithal . . . to describe the scene picked out in the imagination, so as to reveal it adequately to others, such that they in turn might find in the scene a situation of personal meaning and potential action.” Barnett asks, “Can we develop a *practical poetry* . . . of the university?”⁴⁴

I have taken up the challenge that Barnett has announced to university presidents, vice chancellors, and other higher education leaders: they “should become poets of the university, coming forward with new languages, new metaphors for understanding the possibilities for the university.”⁴⁵ Faculty are not excluded, of course, inasmuch as they are able to exercise some control and influence over the future direction of the university. But “the rise of university strategy as a field of

inquiry and a zone of construction raises the question of the locus of creativity,” notes Simon Marginson. “Has it shifted from the academic disciplines to the institutional agency of the university, and from the research professorate to the university executives? Are very bright people increasingly drawn to quasi-entrepreneurial roles at the head of these organizations?”⁴⁶ This book specifically addresses the “very bright people” engaged in university strategy, for that group is involved in what Marginson calls “university making.” “University making and space making have become creative activities in their own right, practiced by multi-performing university leaders who draw on a portfolio of qualities and roles, from business entrepreneur to scientific boffin to patron of the arts. Sometimes they are artists themselves of a kind. Most are timid. Some are bold. A few make changes that reverberate through the university world. These university leaders are supported by teams with an assemblage of specialized skills. Yet much rests on their own ‘animal spirits’ and visioning.”⁴⁷ Michael Crow is one such university-maker,⁴⁸ but my sense is that Barnett’s call for more “practical poets” is aimed at the university presidents, higher education policy experts, corporate executives, and entrepreneurs whose university building has been imaginatively impoverished and imitative.

The speculative designs presented here are in the spirit of the great university-makers of the past, such as von Humboldt, John Andrew Rice (the founder of Black Mountain College), and Lucien L. Nunn (the founder of Deep Springs College). These ten alternative universities might be understood as practical poems about the future of the university.