

CHAPTER 23

Intellectual Change: Creating the University of the 21st Century

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Change has typically come so slowly to higher education that some educators have been known to tell a joke about a man, similar to Rip Van Winkle in the classic Washington Irving short story by the same name, who woke up after being asleep for hundreds of years to find that the only thing he recognizes from life before his extended nap is the college classroom. That's because it has barely changed from the original model of an esteemed professor, standing in front of a blackboard, Chalk, dispensing wisdom to a roomful of somewhat disinterested students.

As Jeffrey J. Selingo (2013), an editor at the *Chronicle of Higher Education*, points out in his book, *College Unbound: The Future of Higher Education and What It Means for Students*, “Change comes very slowly to higher education. Many institutions in the United States were established more than two centuries ago, with a handful dating back to the days before the American Revolution. Tradition is important at these colleges.” But, as Selingo goes on to say, change is paramount today and it's coming more quickly than some institutions of higher learning are able or willing to process. “A confluence of events — flagging state support for public colleges, huge federal budget deficits, and falling household income — now makes it necessary to consider new approaches,” Selingo writes.

THE UNIVERSITY AND ITS ONE THOUSAND-YEAR-OLD HISTORY

The modern American university traces its roots back to Plato's Academy and the early Greeks, with the philosophers intellectually entertaining the elite and the aristocracy, supported by rich patrons who wanted to train the future aristocrats of the day. Simultaneously, there were the sophists, whose schools taught rhetoric and other useful skills that were believed essential in attaining success. But, according to Clark Kerr, the late president of the University of California who is credited with conceiving the state's much-admired but now dated California Master Plan for Higher Education of 1960 when Kerr was president of the University of California system, the university as we know it today began to take shape in Bologna, Italy, in the late-11th century. That's when the University of Bologna, which is believed to be the world's oldest continuously operated university, was established. Bologna, Kerr points out in his landmark 1963 book, *The Uses of the University*, "developed many of the features that prevail today — a name and a central location, masters with a degree of autonomy, students, a system of lectures, a procedure for examinations and degrees, and even an administrative structure with its 'faculties'."

The University arose around mutual aid societies of foreign students called nations for protection against city laws that imposed collective punishment on foreigners for the crimes and debts of their countrymen. These students then hired scholars from the city to teach them. In time, the various "nations" decided to form a larger association, or *universitas*, thus the university we see today. The university grew to have a strong position of collective bargaining with the city, since by then it derived significant revenue through visiting foreign students, who simply departed if they were not treated well. Foreign students in Bologna received greater rights and collective punishment was ended. There was also collective bargaining with the scholars who served as professors at the University. By the initiation of threat of a student strike, the students could enforce their demands as to the content of courses and the pay professors would receive. Professors themselves, however, were not powerless. They formed a College of Teachers, securing the rights to set examination fees and degree requirements. Eventually, the city ended this arrangement, paying professors from tax revenues and making Bologna a chartered public university.

Historically, the University of Bologna, which was founded in 1088, is considered "the mother of European universities". However, this claim was made as symbolic of Italian national unity, leading some to question the legitimacy of Bologna's claim to the first university proper. If the term "university" requires that a single corporate body be made up of students and professors of different disciplines, rather than that a corporate body simply exists, then the University of Paris, founded in 1208, can truly be considered the first university.

In turn, the traditional medieval universities, which evolved from Catholic Church schools, then established specialized academic structures for properly educating greater numbers of students as professionals. These universities trained students to become clerics, lawyers, civil servants and physicians. Yet rediscovery of Classical-era knowledge transformed the university from the practical arts to developing “knowledge for the sake of knowledge”, which, by the 16th Century, was considered integral to the practical requirements of the civil community. Hence, academic research was affected in furtherance of scientific investigation because science had become essential to university curricula via “openness to novelty” in the search for the means to control nature to the benefit of civil society.

As Kerr points out, however, by the end of the 18th Century, European universities had become oligarchies, “rigid in their subject matter, centres of reaction in their societies ... they stood like castles without windows, profoundly introverted”. He goes on to say: “It was in Germany that the rebirth of the university took place ... [The Humboldtian University]. The emphasis was on philosophy and sciences, on research, on graduate instruction and the freedom of professors and students. The department was created and the institute. The professor was established as a great figure within and without the university.” This is essentially the model that has prevailed in the United States since Johns Hopkins University began to pattern itself after the German universities in the 1870s.

THE RESEARCH UNIVERSITY TODAY

Since the U.S. federal government began dramatically expanding its funding of university research during World War II, public research universities in the United States have been transformed into dynamic, indispensable sources of innovation and discovery. They contribute mightily to the nation’s well-being, the U.S. economy and to the world at large. The best ones now do an extraordinary job of expanding our frontiers of knowledge and serving as a roadmap toward life-changing breakthroughs that benefit people around the world and make progress in meeting the most complex and difficult challenges of our time.

That public research universities have grown into this role is undeniable. But so too is the fact that in their evolution, they have become institutions that revolve around faculty and their scholarship. Now, with public expectations, needs and resources changed — and as our students and communities have changed as well — there stands a growing need to reinvent what it means to be a public research university in the 21st Century.

For anyone affiliated with a public research university, it is clear that change does not come quickly, easily or efficiently. This is true despite the

almost constant scrutiny and self-examination to which such institutions are subjected. Our role and mission have been under discussion to one degree or another for a long time, both inside and outside our hallways and classrooms. Soon after Clark Kerr's *The Uses of the University* was published in 1963 as a series of lectures he delivered at Harvard, his ideas landed him on the cover of *Time* magazine. Similar to today, much of the public and news media were fixated on the challenges facing higher education and the role and value it has in society. Befitting Kerr's role as a true visionary, many of his observations are remarkably relevant today, almost 60 years later.

"How to escape the cruel paradox that a superior faculty results in an inferior concern for undergraduate teaching is one of our more pressing problems," Kerr noted. As research prowess grew, the quality of graduate education did as well, Kerr noted, because the teaching of graduate students is so closely tied to research, that when research is improved, graduate education is almost always bound to follow. "At the undergraduate level, however, the subtle discounting of the teaching process has been aided and abetted" by the heavy emphasis on faculty research.

We can debate whether Kerr overstated the case, but there can be little question of the need to change the paradigm for public research universities.

At the University of California, Davis, our academic and administrative structures and our intellectual priorities have very clearly been based on the concept of creating higher education as a community of scholars, where the entire organization revolves around our faculty. The university is built on the teaching paradigms they develop, on their scholarship needs and the results of their ideas about scholarship and research. That has served us well. It has been an organizational paradigm that has allowed the university to grow and flourish. It has also enabled us to make countless contributions to the greater society, as we are charged under the land grant mission bestowed upon us by virtue of the Morrill Act of 1862, a law that was signed while the nation was mired in Civil War. The Morrill Act, according to Jonathan Cole (2009), author of *The Great American University: Its Rise to Preeminence, Its Indispensable National Role (and) Why It Must Be Protected*, "created the seeds of a system of public higher education and proposed financial incentives for expansion and research".

But it has been more than 150 years since President Abraham Lincoln signed Morrill into law, as Justin Smith Morrill, the bill's author put it, to "offer an opportunity in every state for a liberal and larger education to larger numbers, not merely to those destined to sedentary professions, but to those needing higher instruction for the world's business, for the industrial pursuits and professions of life". Now, in the digital age and with an inter-connected global economy Morrill's forebears could never have imagined, we are in need of a new paradigm to meet the changing nature of our world.

At UC Davis, a top public research university with 34,000 undergraduate and graduate students and an annual budget of about \$4 billion within a short drive of the California capital, we spent much of the 2014-15 academic year envisioning a new university model where the emphasis is more on our students and on learning — learning for and on behalf of students and faculty together.

For one thing, students we see today are different from students in Kerr's time, with many more choices about how and where to obtain an education after high school and prepare for the future. They can learn in many places and in many ways, both inside and outside the university. When they come to universities like ours, we are one choice for them among a diverse marketplace of possibilities competing for their attention. They understandably want places and institutions that will address their individual needs and interests.

They are also more vocal about their interests and determined to play a key role in developing curriculum and degree programs. They want more say in choices the university makes about life and activities on campus. Staff expectations have evolved similarly. The University is not as segregated and organized in silos as it had been in the past. The lines between staff and faculty have become increasingly blurred. We have highly educated staff, many of whom are participating in teaching as well as complex and vital research and community outreach. As a result, the role and orientation of faculty are, by necessity, evolving as well.

Faculty is still at the core of all that we do, but that core must now be opened up and expanded. At UC Davis, we have roughly 4,000 faculty. Less than 2,000 are members of the Academic Senate (tenure track), which shares in the university's governance. The rest of the faculty want more of a voice in decisions we make. As students have a greater expectation about participating in anything the university is doing, so do our staff and our entire faculty.

On public research university campuses in the U.S., cultural and organizational shifts, of course, come in the wake of two decades of steadily declining state support for public higher education that was reduced even more dramatically during the Great Recession related to the U.S. and global financial crises that began in late 2007. To cite just one example of the shift in public spending, in 1990-91, state of California general funds provided 78% of the funding for the University of California. In 2011-12, that had dropped to 37%. Higher education in the state now gets more funding from students and their families through tuition and fees than it does from state support, even as record numbers of students are applying to attend UC campuses because they want the education the university has to offer.

To take advantage of the opportunity inherent in these cultural shifts and deal with the public's changing priorities, we have embarked on an ambitious and comprehensive planning and community engagement process at UC

Davis. It will continue to take much of new academic year to work through as we redefine the university we want to become now and far into the future.

LOOKING TOWARD THE FUTURE: THE CHALLENGES AND OPPORTUNITIES OF THE UNIVERSITY IN THE 21ST CENTURY

Looking to the future, the University of the 21st Century should be a place where learning, teaching, creativity and translation of new knowledge are integrated into everything that takes place on its campus. A place where aspiring to achieve excellence becomes an integral part of the everyday culture and lifestyle. A lifestyle that fosters a community of learners which prepares a diverse student body to become outstanding world citizens and leaders at the same time we are creating a productive environment for our faculty to pursue their own passions and interest for scholarship and research.

Our universities should challenge their faculty, staff and students, as well as their affiliated communities, to think creatively and help transform their institutions from a 20th century university community of scholars to the 21st century university community of learners. These are communities where all members use learning to achieve excellence in themselves and for their communities and the world; where the answer to every question creates a path toward a new inquiry; where statements and demands give way to dialogue, debate and the development of a sharply honed aptitude for critical thinking. The University of the 21st Century should be a place which prepares students to be lifelong learners, nimble enough to negotiate and succeed in a future none of us can fully imagine at the moment.

Through our actions, we can demonstrate that excellence, humility and diversity can become our touchstones if we seize this opportunity to dream unconditionally, even in the midst of adversity, and if we have the discipline and academic and administrative rigour to make our dreams a reality. We can demonstrate that disciplinary boundaries can be permeable, that institutional and intellectual silos can be removed if they do nothing more than reinforce our biases and fears. We can be that rare institution that transforms itself from the 20th century university community of scholars to the 21st century university community of learners.

To be the University of the 21st Century, we will also need to become the University for the World, where our community will be extended to embrace all of its members, not just in our regions and our countries but around the globe. We will need to become global in our reach and perspective and use this attribute to change our attitudes and understanding. We can be a university where our entire campus, with all of its regional, national and international sites, becomes our classroom and laboratory. A university where our

classrooms transform into wonderlands of exploration, where the truth is not an absolute or an individual pursuit, and where a journey to discovery is what we share in common.

Despite the current financial recovery and the prospects for a favourable economic environment, opportunities for upward economic mobility for young people during the past few years have been disappointing. In addition, the cost of education and health care is increasing in ways that are challenging our ability to combine quality with access. In our effort to define ourselves as the University of the 21st Century, we also need to reaffirm our commitment to our mission to provide excellence, affordability, and access to higher education and medical care, while we vow to remain global in our perspective and reach in everything we do.

At UC Davis, we are striving to achieve all this at a time when our higher education landscape is more fluid and competitive than ever. What we have learned is that, regardless of the university's location, goals, strengths and objectives, the viewpoints and individual interests of the extended university community are diverse, complex and at times conflicting. Our students and their families, being major stakeholders, have interests and perspectives that need to be heard and incorporated into our academic planning. Technological advances in educational delivery have spurred changes in the learning process and have affected the way our students interact. The "flipped classroom" is encouraging students to be more active learners. Some technologies are promoting customized learning, while others have facilitated greater access to higher education for individuals around the world.

Despite these changes, many young people say that they continue to yearn for a residential educational campus experience complete with face-to-face access to outstanding faculty members. They want the connectivity of being a member of an educational cohort of students with complementary aspirations. They want the richness of campus co-curricular organizations and, perhaps most importantly, they want the unique experience of being part of a world-class research university where we not only teach and learn, but also create knowledge through the discovery and innovation inherent in our research mission.

On our campuses our faculty and staff are recruited from around the world. They elect to join our campuses because doing so provides opportunities to expand their professional development, scholarly and clinical pursuits. They join us because they are committed to teaching and mentoring outstanding students and because they want to be members of a vibrant intellectual, research and clinical community that reflects a rich tapestry of diverse perspectives illustrative of our nature as a comprehensive land-grant university. All members of our community expect to fulfil their work life in an environment that values diversity as an enabler of excellence, provides opportunities

for continuous learning and personal growth, and encourages and rewards creativity and risk-taking.

On a daily basis, students, faculty and staff on our campus work hard to advance our research, learning and public service missions. Recognizing our strengths and being cognizant of our weaknesses, we believe that this is an appropriate time to undertake a serious and aspirational community dialogue about the direction we must take to ensure the excellence of our campuses for the next 50 years. It will be important to create a vision that recognizes these realities and embraces the many innovations the future will bring in the way of tools, educational models, services and products, as well as the skills that will be needed to support the economies these innovations will drive.

At the same time, it is paramount that the University of the 21st Century fully recognizes its reach and impact, and the responsibility that comes with it. This responsibility requires the university to be socially engaged rather than insular, and externally oriented and aspiring to become a major driver in improving the quality of life of the communities it serves. For this to become the platform on which the University of the 21st Century will be built, we will have to identify its legacy strengths and build on them; recognize the importance of being bold, creative and optimistic; and embrace risk-taking as a way of freeing ourselves from past barriers.

UC DAVIS AS THE UNIVERSITY OF THE 21ST CENTURY

As part of the envisioning process we have initiated at UC Davis, we have asked the campus community and experts outside the campus to engage in discussions about the future of the university and to challenge themselves with many big questions. They include:

- a) How do we invest in the initiatives that will help us build the UC Davis of the future? How do we make the initiatives we want to invest in successful, visible and impactful to the communities we serve and to the rest of the world? What global societal challenges are UC Davis uniquely positioned to address? How can we leverage inter-disciplinary and intra-disciplinary collaborations to be a more visible and impactful leader in addressing the society's greatest challenges?
- b) What new intellectual directions, in both our educational programs and research directions, do we need to consider that will have the potential to establish UC Davis as the UC of the 21st Century? How can we ensure student success by making learning and critical thinking the core of our educational experience? How can we ensure that the educational experience of our students mirrors their diverse perspectives and needs, and supports their aspirations both personal and

professional? How can we prepare students for the world and a future we may not currently know or understand?

- c) How do we create the right environment for our faculty and staff to succeed in their scholarship and achieve their intellectual or professional pursuits? How do we inspire excellence and continuous learning in everything we do? How do we recognize faculty, students and staff for their contributions to their intellectual and professional communities and for the innovation and creativity they bring to their workplaces, their classrooms and their laboratories?

As the university in a region that includes the capital of one of the world's largest and most dynamic economies, we know it is vital to our future to become more visible and impactful in Sacramento. We understand that by creating a presence that will bring together activities that need proximity to state government and access to an urban population, UC Davis can become a more vital educational leader in higher education in the nation's most populous state. So we are asking ourselves: How can we bring together our policy activities and student internship programs that benefit from being adjacent to the Capitol? How can we establish ourselves as the leader in education and clinical outreach at the nexus of Food and Health? How can we achieve these educational and research objectives and at the same time lead the region to become the fourth economic powerhouse in the state along with San Diego, Los Angeles and the Bay Area? How do we create a vibrant UC Davis City Center in Sacramento to provide our arts, humanities and sciences with an urban laboratory for their educational programs, scholarship and outreach to an urban population?

One cannot plan and envision for the future without having a firm grasp of the university's financial picture, and we are actively engaged in addressing how we can create a more sustainable financial environment. What should our priorities be in generating revenue as we try to address our immediate and long-term needs in academic programs and facilities to accommodate growth on our campus as part of our plan to add 5,000 additional students by 2020 from the numbers we had at the state of the decade? How can the university's resource model enable and fuel our academic mission? What novel perspectives can we take on the complex portfolio of revenue sources such as State of California support, tuition, philanthropy and extramural research funding? How can we best organize ourselves to be responsible stewards of the resources that we currently have through administrative efficiencies?

Hand in hand with these considerations is the need to create and nurture an environment that supports human equity. What further policies, procedures and practices can we consider to ensure that our diverse faculty, staff and students experience an organizational environment characterized by

equity, inclusion, academic freedom, freedom of expression, social justice and a shared responsibility for supporting and enabling the success of others?

As we seek to become a more global university, we understand this is both necessary and not without controversy in our state, where politicians and the public demand we serve California students first and foremost. So the questions become: How do we balance our commitment to our state with our responsibility to the world? How do we help our students become global citizens? How do we have an impact on the world through our values, principles and actions? How do we have an international impact through our programs, scholarship, innovation and clinical outreach?

MOVING FORWARD: A CALL FOR ACTION

Those who say that a revolution is needed in higher education are correct. But I believe it is not going to be the kind of transformation that some are advocating or predicting where thousands or even millions of students are scattered around the world, staring into a laptop or smart phone and watching an online lecture in physical and social isolation from one another. To be sure, online and other technologies have a growing role to play now and in our future, but the coin of the realm for the future of public research universities is not going to be the “University of Everywhere”, as one noted higher education analyst has predicted. The challenge is how do we evolve into a new kind of community of learners where we make all of our choices based on the needs and aspirations of everyone who is part of this community? How do we transform the university from a self-centred intellectual community into one that asks itself what are the needs of our students, of our faculty and staff working collectively? It will require us to change our priorities and the structures and processes we have built to pursue those priorities so we are a university where the emphasis is always on learning. This is no small task. We will learn much along the way that is likely to change our thinking. As with any big attempt to bring about change in an extremely complex entity, we are likely to take some false steps and make mistakes. But this is a journey we must take to keep our public research universities at the frontiers of change, innovation and higher education locally as well as globally. Our students today and in the future demand no less of us, as do our regions and countries.

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