Higher Learning: Lessons from an Online Advocate

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Abstract. On November 16, 2017, the University of Colorado Board of Regents voted unanimously to allocate US$20 million for a number of online program initiatives including the development of an online-only master's degree and an only-only bachelor's degree with a total fixed-cost—including tuition, books, and fees—of US$15,000 each. The price for the online-only bachelor's degree will be roughly 75-percent cheaper than a traditional on-campus degree. This article examines lessons learned from the success and failures of an online advocate at the senior leadership level of an institution—the board of directors—that helped make the development of these new degrees possible. From these lessons, the paper argues that United States higher education culture is holding back the rapid expansion of online programs, preventing many universities from fulfilling their social contract with the public and serving more students in the mission of access. The article explores how the dominant mental framework in higher education—the prestige economy—unconsciously drives decisions by many faculty and administrative leaders, and it argues that reputation unto itself does not necessarily equate to a higher quality academic experience for students. As a recourse to the academic prestige economy, the article maps one individual board member's experience, tracing the importance of vision, leadership, and determination in creating coalition of the willing committed to institutional change. The article ends with a series of thought questions intended as conversational prompt for institutions, regardless of size or mission, to examine their own academic cultural bias and institutional barriers that prevent embracing online programs or change in general.

Keywords: MOOCs, cost, access, innovation, disruption, leadership, cultural change, curricular design, University of Colorado.

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The problem is clear.

The world needs more university-educated individuals, and governments don't have the resources, nor the available talent, to quickly scale brick-and-mortar universities to meet demand. With the explosion of broadband and mobile data access, the solution also seems clear: scalable online education.

One major obstacle: higher education culture.

While I argue for the rapid expansion for online programs, I view these programs as supplementing traditional universities, not replac-

ing them. We don't need to throw out tradition or traditional universities; they will always have their place. Rather, we need to acknowledge and address how our current structures and biases are holding back the development of online programs that can quickly and effectively serve more students. And, we need to be honest about the individual and societal costs of that failure.

I've come to this conclusion after serving nearly twelve years as a member of the University of Colorado Board of Regents (Colorado, USA). We, as a board, oversee four campuses—one R1 research university with five Nobel Prize winners that is part of the prestigious American Association of Universities; one R1 research medical campus that is among a handful of academic medical centers in the United States that combine teaching, research, and clinical care; one urban research university; and one regional research university. They share a combined annual operating budget of US$4.5 billion and nearly 65,000 students.

As a Regent I have served as vice-chair of the Board, and chair of the academic affairs, strategic planning, budget and finance, and laws and policies committees. During my tenure the University entered into the Massive Online Open Course market, with more than two million unique enrollments in the coursework to date and has significantly expanded online degree offerings. I have personally championed efforts to create a three-year, cross-institution, online-only bachelor's degree; the development of a US$15,000 online-only master's degree, and a US$15,000 online-only bachelor's degree. Those prices include tuition, books, and fees.

As a higher education policy maker, as someone committed that our universities fulfill their mission to serve the communities to which we owe our founding and ongoing existence, and as a former non-traditional student that had a life-transforming experience because of affordable public higher education, I see online education as a necessary and critical component of our delivery model. Done properly, online education provides access to those who have the mental capacity and rigor to succeed, but do not have access to a campus due to geographic, family, work, and/or other limitations.

After initial investments, which can be significant, online education can begin to lower the costs of undergraduate and graduate education through scale. Like large undergraduate lecture classes that are revenue positive (profitable), scaling classes to a few thousand paying students can generate enough revenue that will cover costs, generate revenue, and allow universities to charge less. That, in turn, makes a university education affordable to more people.

There is no question that universities and academic societies have benefited their host countries and all of humankind through teaching and the advancement of knowledge through research. Decades of success and general high regard, combined with little oversight, have left too many universities and faculty self-satisfied, however. Com-

fortable with their positions and accompanying rewards, institutions and faculty have become more insular. This comes at the cost of better serving those that ultimately make academic institutions viable—taxpayers.

The self-focused university culture is enabled and rewarded by business, government, university trustees, accrediting bodies, philanthropies, donors, professional organizations, scholarly societies, media rankings, and alumni that fail to challenge the status quo. Without strong pressure from these groups, and the general public, there is no urgency for universities to change.

This is not some conspiracy, nor is it ill intent; rather we are limited by current policy structures and mental frameworks of how we understand, reward, and govern higher education. The challenge is not whom we are serving today, which we do reasonably well, rather whom we are leaving behind, which is many. This is where online education brings us hope.

My experience, success and failures, with the University of Colorado system provides insight as to how policy makers can influence the expansion of online education. While no two institutions or situations are identical, extensive literature has shown similarities in higher education culture in universities, large and small, public and private, throughout the world.

These insights, provided below, can provide useful prompts to further dialogue on how to identify and work through institutional and cultural barriers regarding development and implementation of significant online programs. This includes the necessity of understanding the mental framework of higher education; that academic reputation does not necessarily equate to a quality academic experience; how reward systems are built to maintain the status quo; the importance of leadership; the limits of board power; and the necessity of forming coalitions of the willing.

Mental Framework

"Prestige in higher education is like profit is to corporations."
Jeffery J. Selingo, College (Un) Bound

Academic reputation has been conflated with overall academic quality and/or academic experience. These are separate issues. An improving reputation does not automatically equate to a better student experience. Nor does an increasing reputation mean that an institution is actually fulfilling its mission in the way that is generally understood through the existing social contract between universities and the public/government that funds them.[1] Yet, reputation remains the curren-

[1] In my analysis, the social contract between the people and universities looks like this: *We, the people and government, will support your university with money and tax-free status and, in turn, you will dedicate yourselves to educating individuals, at a reasonable price, across a range of disciplines that, ultimately, will benefit society. And, for some institutions, we will encourage you to conduct research that will further advance society. Do that, and we*

What Can You Do?

For those committed to vastly expanding access to higher education through online education there are a number of actions that can be taken. Here are some suggestions:

Presidents/Chancellors

- Clearly explain how online programs will help students and fulfill your public mission. This will be key in winning over reluctant faculty and garnering donor support.
- Set firm expectations about online program goals; be clear that failure is not an option.
- Bring all stakeholders together to ensure collaboration.
- Provide proper funding and time.
- Provide other necessary financial incentive programs that encourage faculty and staff to embrace online efforts.
- Develop dedicated areas of online excellence and expertise; ensure they are connected throughout the university.
- Create campus awards for online efforts.
- Include online performance measures for Provost, Deans, admissions officers, etc.
- Ensure you have the right technology and other academic support structures and staff in place.
- If your campus leaders won't innovate, replace them.

Trustees/Regents

- For fastest results within a university system, direct the president/chancellor to develop an online-on-

cy of higher education and that poses major challenges for quickly developing significant online educational programs.

Prestigious universities don't want, or need, the unwashed masses. Meaning, there is no interest in students that are not practically guaranteed to succeed in the classroom. They want, as do many universities, the "best and brightest" students, those straight out of high school with stellar academic records. The faculty wants to teach the "best" students [DeMillo 2011]. Media rankings reward exclusivity. Alumni and lawmakers love increased prestige. Donors reward "success." These universities have more students applying than they can ever serve, so outside of some public shaming and liberal guilt, there isn't a lot of incentive to change.

While educating a miniscule fraction of the global population of higher education students, these prestigious universities set the standard to which many higher educational institutions aspire. They have become the mental model of what a university "should" be [Selingo 2013]. While there is only one Harvard, universities spend a disproportionate amount of time working to bolster research, often at the expense of less attention on undergraduate education, in an attempt to climb the academic reputation ladder [Christensen, Eyring 2011].Reputation, the lifeblood of higher education, has become its poison.

Decisions about who is hired, what degrees are offered, what institutions call themselves, what costs are incurred, which students are admitted—or kept out—are influenced by how those decisions will impact reputation. The thinking goes, if reputation is improving than the university must be doing the right things.

While higher education means well, when a university's resources, attention, hiring practices, reward systems, and brainpower are aligned behind the goal to increase reputation, other areas suffer through a lack of attention and investment. As numerous reports have pointed out there are common issues across all of higher education including undergraduate retention rates, six-year graduation rates, access, affordability, diversity, transferability, and in-class instruction. Short-changing these areas as a sacrifice for other goals is a violation of the social contract. It's no wonder higher education continues to lose public support.

will generally continue to give you money and leave you to your own devices.

ly campus or unit that has its own set of rules and reward systems.
- Include online performance measures for President/Chancellor/Campus Leadership.
- Ensure proper funding for online programs.
- Ensure proper metrics to measure online performance: recruitment, retention, graduation rates, non-duplicated students, etc.
- Ensure proper technology infrastructure is in place.
- Understand demographics and trends for online learners as these are changing rapidly.
- Ensure online programs are aligned with your mission and community/country needs.
- Ensure proper policies are in place.
- If you choose to use outside pressure:
  - Universities react most quickly to:
    - Threats by lawmakers to take away autonomy or funds.
    - Bad media coverage.
  - The also respond, but less quickly, to:
    - Threats from the Board of Directors
    - Upset major donors
    - Large numbers of angry students/alumni
- If your leaders won't innovate, replace them.

Policy
- Align tenure and promotion rules so they reward and do not punish faculty that teach online.
- Provide greater flexibility to gain tenure through teaching and teaching online.
- Create better permanent career paths for online instructors (non-tenure faculty).

The *2018 Survey of [U.S.] College and University Presidents: A Study by* Inside Higher Ed *and Gallup* found 80 percent of respondents asked about race relations on their own campus, "describe them as 'excellent' or 'good,' compared with 20 percent who say the same about race relations on U.S. campuses generally."[2] When these results were shared on March 12, 2018 at the American Council on Education conference in Washington, D.C.—the audience laughed. The higher education leaders in attendance immediately recognized the obvious bias of the survey respondents, "We are doing well, while others are not." How likely would similar responses be when university presidents are asked about balancing growing reputation with other goals?

The higher education cultural bias towards reputation came into full view when I first joined the CU Board of Regents. At the time, I proposed CU should create a version of what had been operating in the University of California system for decades—a guaranteed admission program for community college transfer students.[3]

Two of our general campus chancellors had no interest in such a program. They didn't need the students, it hurt their rankings, and it might cost them some tuition money. The chancellors were more interested in prestige and an easy budget model over the mission to create more access for students. There was no obvious reward to changing the status quo.

There are limits to what an individual board member can accomplish on one's own, as any board member only has one vote. A typical higher education board member wields three generally accepted types of power: the ability to ask questions and gather facts; the ability to request and secure meetings with key leaders; and the ability to influence and/or persuade key stakeholders and other board members.

In this effort to secure a guaranteed admission program I asked questions, gathered facts, and was initially unsuccessful in persuading leaders that the program was the right way to move forward. Not happy with that result I decided to break the unwritten "rule" to keep university business in-

[2] https://www.insidehighered.com/system/files/media/2018_Presidents_Survey_Final.pdf

[3] In the United States, community colleges, also called junior colleges, are institutions that grant two-year associate degrees. Community colleges students are, generally speaking, from lower socio-economic backgrounds and underserved student populations. These colleges have a dual mission: prepare students to transfer to four-year universities and/or vocational training.

- Make clear articulation agreements about transfer credits for online courses with area feeder colleges.

Faculty/Staff
- Build your own coalition of the willing.
- Tenured faculty—use your position to advocate for change.
- Understand the context you are operating in and speak to people's valid concerns.
- Where possible, collaborate across departments.
- Seek grant funding for online programs.
- Advocate for online programs with department chairs, deans, and provosts.
- Encourage faculty and staff governance groups to advocate for online programs and university polices and investments that support online education.

Higher Education Professional Organizations and Academic Societies
- Acknowledge how you are complicit in preventing rapid adoption of online education and the impact that is having.
- Develop workgroups around best practices in higher education, ensuring rigor.
- Create prestigious societies, awards, and other recognition programs for online programs, teaching, and faculty.

Philanthropy/Donors
- Take responsibility for your part in perpetuating the current system.
- Develop dedicated grants for the creation of online programs.

house and brought external pressure, a fourth form of power, to force change. I developed an advocacy video calling on state lawmakers to pass a law requiring guaranteed admission programs for community college transfer students at all of Colorado's four-year public universities, including those outside the CU system. I lobbied elected officials, higher education regulators, and local media to embrace the idea.

Between the time the University initially turned down a guaranteed admission program and my lobbying effort, the Regents had hired a new University of Colorado President, Bruce Benson. Benson was more sympathetic to the plight of transfer students and, after sharing with whom I was speaking and the goal of those conversations, he agreed to take a fresh look at the issue. While that review took place, I suspended my external lobbying efforts to provide him an opportunity to see what the University could come up with. Because he put his leadership behind the measure, the University changed course and now has one of the best guaranteed admission programs for community college transfer students in the country.4 And, none of the feared ill effects ever came to be.

While the lobbying effort had worked, it came at a cost. My relationships with other board members and university leadership had been strained. They felt I had gone around them—which I had—and they didn't appreciate it. If I was to avoid being marginalized, a fate inflicted on previous board members and a common practice in group dynamics, I needed to maintain strong relationships with both my board colleagues and university leaders. That meant, when it came time to advocate for online education, I had to play by the rules.

It had become painfully clear, as others had learned long before me, that higher education culture and the many re-

[4] See https://www.denverpost.com/2010/11/16/cu-guarantees-admission-to-community-college-students-with-30-hours-and-2–7-gpa/ and https://www.denverpost.com/2010/11/18/two-years-of-college-good-four-years-even-better/ The requirements for guaranteed admission to the liberal arts program of University of Colorado's Boulder, Colorado Springs, or Denver campus are:
– High school diploma or GED 30 semester hours of transferable Colorado community college coursework, with a GPA of 2.7 or higher A cumulative GPA of 2.7 or higher for all college coursework—including credits from attendance at other institutions—with consistent or improving grades Completion of Minimum Academic Preparation Standards (MAPS): http://tiny.cc/CUMAPS Completion of an admissions application and submission of all required documents by published deadlines.

- Create scholarships for online-only students.
- Develop an "X" prize for driving the cost of a degree down by using online delivery.
- Develop prestigious awards for online education innovation.
- Endow online education chairs.
- Fund projects that advance online teaching excellence, ensure rigor, and spread best practices.

Lawmakers

- Take responsibility for your part in perpetuating the current system.
- Gain a better understanding of online capabilities and what is currently being done in your country.
- If you feel universities are not doing enough, threaten to regulate.
- Don't allow the haze of nostalgia to impact your decisions.
- Hold institutions to account for graduation rates and accessibility.
- Prevent mission creep from universities that would encourage exclusivity over access.

Business Leaders

- Change the way you look at hiring and find ways to become more accepting of online credentials.
- Provide internships for online students.
- Partner with universities for online programs that are needed for your workforce.
- Encourage executives to serve on university advisory boards and advocate for online options.

ward systems in place for faculty and administration are too entrenched to expect a quick embrace and implementation of any significant changes [Bok 2006]. As reputation is the currency of higher education, institutions and individuals do not see how rapidly expanding online education helps them win the reputation game.

That's why in 2013, I argued the easiest and fastest way to create and expand online programs at CU would be to develop an entirely new, online-only campus dedicated to different goals, models, and reward systems that were completely focused on online education. It would be the fifth campus in the university system that would have relationships with, but would be separate from, the other institutions. The idea was not that radical; other institutions had already taken a similar approach.

For the reasons stated above, this proposal was by the rules. That meant asking the president and campuses to explore the idea, determine its strengths and weaknesses, calculate costs, and make a recommendation back to the board. Some external pressure did come, as the largest newspaper in the region endorsed the idea.[5]

Campus leaders hated the proposal and killed it.

In a move typical of large bureaucratic institutions with various and competing interests, an initial recommendation by an internal group of experts was set aside and never presented to the board. Why? There were three main reasons: 1) concerns about losing revenue at some unknown point in the future when they got around to significant online offerings; 2) they didn't want start-up costs diverted to a new campus when that money could go to them; and, 3) they wanted to maintain control and continue to operate with the current reward systems. In short, they didn't see any upside for this new venture for themselves and they didn't want a new direction imposed upon them. They did, however, present the board with a plan to move online efforts forward. It was uninspired, slow, and protective of the academic culture status quo, but it was a plan where none had previously existed.

Being a board member means trusting the leadership team you have in place. If that trust fades, or your leaders don't meet goals and expectations, it's time to get new leaders. For this effort, we had to wait and see the results.

[5] https://www.denverpost.com/2013/12/05/cu-online-plan-is-groundbreaking/

Over the next couple of years, the CU Board of Regents saw new online programs from our campuses progressing at the typical academic pace, lacking true direction, with no urgency, and limited innovation.

While the campus response was beyond frustrating, we shouldn't have been surprised. When leaders are reasonably successful under the current rules and rewards there is an immense avoidance to change and risk. Senior leaders worked their way up the academic ladder, they know the culture, they know the rules, they know how to work them to their and their institution's advantage. It appears more logical to double down on the current course than to venture into unknown areas. Why mess with what worked in the past? The challenge of getting organizations to embrace innovation and change is not unique to higher education [Christensen 1997].

Universities that were quick to embrace and deliver a high number of quality online programs had strong leaders that demanded, funded, and built a culture of expectation and support around it.[6] These exceptions highlight what is possible and, in contrast, how moribund traditional academic culture can be.

Taking lessons from the failure of developing an online-only campus, the Regents proposed a solution that embraced parts of higher education culture, rather than trying to fight it, while encouraging a reluctant university community to become more innovative. We put together a grant program calling for faculty proposals to develop a three-year online-only degree that includes the following requirements[7]:

- Degree must be offered completely online
- Provide for three-year completion option
- Classes offered had to originate from at least two of CU's three general campuses.

In addition to developing a three-year, online-only degree, the goals of the program were: get the campuses and faculty to think and develop new ways for program delivery; force cooperation among campuses; align classes for faster degree completion by motivated students which, in turn, would save them money; and lower university costs by sharing resources across campuses.

The grant from central administration funds provided money for degree development costs and stipends to the faculty and staff on the winning proposal team.

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[6] Two of the earliest adopters of significant online program offerings in the United States, the University of Arizona and Southern New Hampshire University, followed this model.

[7] https://www.cu.edu/sites/default/files/online-degree-grant_guidelines2016.pdf

The campus leadership agreed to this approach for two main reasons: campuses maintained control, and brought revenue back to the campuses. Faculty liked the grant proposal approach, as it was part of the existing academic culture.

This three-year program is launching in the fall of 2018. It is a modest success, at best, as projected enrollment is low, there is limited enthusiasm for the program because it is not wholly owned by one campus, and the forced inter-campus cooperation met with a great deal of resistance.

Like the previous efforts, this experience provided new insights into how to move future online programs forward. In hindsight, using the development of the three-year program to force cooperation among competitive entities, without strong leadership demanding it and holding people accountable, was overly optimistic if not outright naive. Getting a creative online program set up and launched within the current academic culture is difficult enough without tying it up in other institutional baggage.

Coalition of the Willing

"Culture eats strategy for breakfast."
Peter Drucker, Ph.D.

While higher education culture needs to change, there are many traditions worthy of cherishing and protecting—one of which is the ethos of broadly disseminating new findings. Demonstrated most often by faculty in publications, this willingness to share new knowledge has become part of academic DNA. Best business practices around recruitment, admissions, facilities management, cyber security, big data, and dozens of other areas are shared freely among universities. This desire to share is especially true for advocates of online education, as most universities are facing the same issues regardless of location.

In addition to learning from experts within the CU system and looking to the latest literature, we sought to learn directly from other university systems.

Under the leadership of Deborah Keyek-Franssen, CU Vice President for Digital Education and Engagement, we met with three separate university system offices dealing with online education over two years. These visits were with the University of Texas, with 14 campuses, a US$17.9 billion operating budget (2016), and 221,000 students; the University of Nebraska, with four campuses, a US$2.35 billion operating budget (2014), and 52,000 students; and the State University of New York, with 64 campuses (two-year and four-year), a US$13.3 billion operating budget (2017), and 1.3 million students.

The teams we met with were comprised of accomplished individuals who provided great insight and wisdom. Our team had three broad goals for each meeting: learn each university system's overall approach to online education, gain a greater understanding of their challenges and how they are addressing them, and have a free-flowing exchange of ideas.

Each university has its own approaches, goals, leadership involvement and/or direction, campus commitments, and funding models based on their specific circumstances. A consistent theme did arise across the visits: the necessity to build coalitions of the willing. Coalitions were comprised of those faculty and staff who wanted to break new ground in developing online learning programs and expertise. Once these initial efforts were successful, others would begin to see the value and possibility of online—albeit slowly—and begin to join in. The seeds of culture change were planted.

Something these trips provided that was not immediately understood at the time, was an increase in my credibility around online education with campus leadership and my own board. Working within proper structures, communicating clearly about the visits, doing other homework, and remaining a committed advocate for online education laid the groundwork for the next phase of our system-wide efforts at CU.

By 2016, it became clear in private conversations that nearly all of the CU Regents were disappointed with how the university was performing with online education. Because our campuses were functioning well in many traditional areas, underperforming in online wasn't reason enough to get new leaders. What to do?

Through our general disappointment, the Board of Regents had become the ultimate coalition of the willing. While individual board members have limited power (discussed above), the board acting as whole has the ultimate power to enact change—albeit on paper. With any large, complex organization trying to force change, unless the proper support structures are in place, even the clearest board directives can get derailed.

Based on past efforts and developed expertise, my colleagues allowed me to take the lead on drafting a proposal. We took all the lessons learned from our previous successes and failures and brought forth a dramatic proposal that would be our "moon shot" for CU. On November 16, 2017 the Regents unanimously passed a number of online directives for the CU system. Excerpts of that proposal include:[8]

- RESOLVED: In order to more fully meet the needs of current and future students; increase access and affordability especially for first generation college students, working adults, and rural residents; and ensure that Colorado has the trained workforce it needs; the CU Board of Regents directs the administration to meet the goals listed below so that CU can embark on a new era for online learning

[8] The full resolution: http://www.boarddocs.com/co/cu/Board.nsf/goto?open&id=AT3PJP63BCA0

- By Fall 2022, develop and launch two online-only degrees with a total fixed cost to students of US$15,000, including books and fees, one for bachelor's level and one for master's level. These proof-of-concept online degrees would use techniques such as asynchronous delivery, multiple start-times per semester, efficient scaling, and open educational resources.
- Noting that the proposed alternate technologies and pedagogies will require changes to basic infrastructure such as admissions, financial aid, registration systems and bursar operations, and will also require support for the faculty, such as instructional design professionals and studio facilities, the university shall invest at least US$20 million to reach these goals over the next 4 years. Additionally, the university shall develop revenue models that will support the ongoing needs of the online efforts across the campuses after this investment.

The hope is that a bachelor's degree for US$15,000 will prove to be a game-changer for higher education.[9] That aim is to prove that through scale and online educational resources, the price of higher education can be brought under control. It is also intended demonstrate to governments and governing bodies that proper incentives and investments in online education can help meet a society's higher education needs.

A four-year bachelor's degree at US$3,750 per year brings back the possibility of a student working her way through college without becoming thousands of dollars in debt. That makes a college education possible for those that feel left behind due to price.

The US$15,000 master's degree is also intended to be a game changer, similar to above, with the additional bonus of allowing professionals an affordable option to further their education and careers at a reasonable cost.

As a board we did our job: set clear goals and deadlines, and provided the money to accomplish them. Because there were still concerns from our individual campuses about future revenue, investments, and control—similar to those concerns about the 2013 online-only campus proposal—the questions remained which campus would be required to do what.[10]

Learning from past experience, rather than fight our current culture, we decided to work within it. The campuses volunteered to take accountability for specific goals that they felt best fit their mission and had a high likelihood of success. At the same time, all campuses

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[9] That figure is only available to the State of Colorado residents, whose tax dollars directly support the University of Colorado.

[10] Typically, a board of directors should have nothing to do with deciding who should accomplish a task. In this case it was important for the board to provide that guidance due to circumstances unique to CU.

would receive investments to improve the necessary technology infrastructure to help both online and in-person students.

Time to celebrate, right? Not yet. Significant institutional resistance needs to be managed to ensure the university doesn't revert back to the status quo. Even with a unanimous board, clear goals, and proper funding, these measures can fail. Calling back to Peter Drucker, higher education culture can still eat strategy for breakfast. As a board, we have the opportunity to set direction, but it remains to be seen at what level these initiatives will actually be implemented.

What remains true is that each success and failure provides further insight on how online education advocates might approach institutional change and begin to influence the current academic culture. Granted, these case studies are for a specific university system with a specific set of financial, political, and financial circumstances. The stories of success and failure are offered as a conversational prompt, not a "how-to" manual. They are intended to help bring forward the hard questions about how institutional and academic cultural barriers might be preventing the development of significant online programs at any given institution.

Conclusion

The University of Colorado was founded in 1876, the same year Colorado became the 38th state of the United States of America. The country itself was only 100 years old. The two most significant technologies of the day were the steam engine and the telegraph. Railways were still transforming the wide-open and empty American West. Students and faculty arrived to CU's one building, in the middle of an empty field, via a horse and buggy.

From those humble beginnings what we have become would be unrecognizable to CU's first class. Like most universities around the world, what we now teach and research did not exist when the institution was founded.

As online advocates look at transforming higher education to embrace online delivery, we need to remember that higher education has always changed and adapted to new knowledge, disciplines and technology. At one-point microscopes, telescopes, x-rays, typewriters, and computers were new. The same for disciplines like microbiology, computer science, quantum physics, aerospace, bioengineering, film studies, sociology, economics, etc. While our traditions have guided us, they did not prevent us from adapting and growing into what we are today.

Those who continue to claim online programs have no place in a university don't understand the history of higher education. What a university is, whom it serves, what it offers, how it operates, how it creates new knowledge, how its reward systems are structured, and how it delivers information are not permanently fixed. It never was.

People made decisions to get universities where they are today, that means we have the power to make different decisions to create something new.

With current technology, universities have the ability to transform millions of lives across the globe through online programs. Geography and status no longer have to be density. We can empower people born into the "wrong" place or come from the "wrong" family to chart their own course. Through online scale, we can help countries with exploding populations ensure access to quality higher education. In developing countries, or impoverished regions, online programs can help workers become more economically competitive which, in turn, raises a community's standard of living and improves the overall quality of life.

To deny individuals access to life-changing education because universities are committed to the reputation game has become indefensible.

That is why our task is to deal with the headaches and the resistance of well-meaning and respected colleagues; call on lawmakers, business, philanthropies, donors, and academic societies to think beyond the status quo and support developing the necessary infrastructure that embraces online programming; and take the risks that come with challenging an entrenched culture—because it matters.

dvisory boards and advocate for online options.

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