

Innovation in Higher Education:

Can Colleges Really Change?



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Introduction

Higher education faces many more challenges today than ever before in its history. Colleges and universities are challenged to serve a variety of students, from those who are academically gifted to those who are under-prepared for college-level work. They are challenged by the shrinking pool of traditional college-aged students in the United States. They are challenged by the political pressures regarding the cost of attending college and the growing student debt upon leaving college. These challenges are hitting higher education from many fronts.

While higher education is seen as a critical partner for the future of the United States, it is also experiencing a tremendous amount of political pressure. Public and political expectations, coupled with the soaring costs of a college education, have led to pressure on colleges and universities to become more efficient, to innovate and to perform.

What is performance? That is one of the key questions that higher education leaders must answer. The performance expectations of those inside higher education does not appear to align with the performance expectations of those outside of higher education. This misalignment is leading to more regulations and more frustration. There is a belief among some outside of higher education that if colleges were more innovative outcomes would improve. Yet despite this desire for innovation, the vast majority of funding formulas from state and federal governments remain very traditional. That said, there is also a growing trend within state funding sources across the country to establish performance funding formulas (pay for outcomes) which elected officials believe will make higher education more efficient and produce more, and “better,” graduates.

This paper will explore the current state of higher education and the pressures facing colleges. It will also explore innovation and some of the challenges to innovation in higher education, as well as some of the successes. While this paper will, by no means, provide a definitive direction for colleges and universities, it will recommend some changes that can be implemented on any campus to improve outcomes and efficiencies.

It is the hope of the author that this paper will inspire conversations on campuses across the country regarding innovation in higher education. It is also the hope that it may inspire more dialog regarding federal and state approaches to working *with* higher

education leaders on improvements that will provide more students a better college education.

Changing Climate of Higher Education

Higher education is under attack. What was once a climate of good will and respect for institutions of higher education - founded in the belief that the administrators, faculty and staff who worked within the hallowed halls of learning institutions were doing the greater good of society - is now replaced with a general sense of skepticism. Most of these feelings are borne from the increasing costs of operating colleges and universities, as well as a general lack of understanding of the breadth of work conducted in higher education today. This lack of understanding is often compounded by the fact that some of that work is difficult to measure through traditional methods.

The federal government alone spends over \$150 billion annually at colleges and universities to educate students. This funding is then supplemented by billions of state dollars nationally. Faced with graduation rates between 15% and 57% (depending on the institution) public decision makers are asking if they are getting their money's worth for such a large investment. Similarly, the general public is expressing growing concerns over the high cost of a college education, worrying about growing student debt and wondering if a college education is worth the cost.

There is no doubt that today's climate of higher education is placing more pressure on leaders of colleges and universities to think differently about how they manage their institutions. There is more accountability placed on institutions for performance. That is, clearly defining the outcomes of an institution - especially related to student learning - and how institutions then prove that they are meeting those outcomes and ultimately, students' needs. National accrediting bodies, long thought of as the "quality enforcers" of higher education, are being directed by the federal government to be more demanding of institutions. It appears that there is a growing climate of mistrust of the accrediting bodies themselves, seeing them as "good-old-boy networks" rather than as quality control organizations; and, the federal government wants it to change.

Student retention and completion is becoming the mantra of elected officials. The legislation entitled No Child Left Behind advanced by then President George W. Bush, was envisioned to assure that every student in primary and secondary education would meet established standards. Those schools in which students failed these standards would lose funding. While the success of No Child Left Behind can be (and is being) debated in a variety of settings, the growing belief that student failure is the

responsibility of the institution is popular in capitals all across the nation. Today, there is increasing sentiment among policy makers to apply standards and policies similar to No Child Left Behind to higher education. They expect colleges to address issues related to student failure and to improve student retention and graduation rates across the board; and, to do so quickly.

Education leaders all across higher education are discussing these challenges. John Ebersole, in an op-ed piece for Forbes Magazine, identified the top issues facing higher education today. He lists several issues beginning with the increasing cost of higher education. He states that while “much of the cost increase over the past five years can be attributed to reduced state tax support for public institutions which has forced an offset through increases in tuition and fees”¹ the public and elected officials do not believe that such increases are justified. Dr. Ebersole also cites a) a trend toward competency based education, b) tougher accreditation standards, c) an emphasis on assessment, d) voids in leadership, and, e) the growing diversity of students as challenges that will plague higher education in the coming years.² These challenges must be faced by college leaders. To respond to such concerns, leaders are exploring numerous initiatives on their campuses and throughout higher education.

Student Expectations

In her article, *Five Critical Issues Facing Higher Education Leaders in 2014*, Karlyn Borysenko cites that increased scrutiny toward colleges and universities is a major challenge now and for the future. She highlights a survey finding that “...24% of alumni say the cost of their college education exceeded its value.”³ That is, perhaps their college degree is not providing them with the return on investment that they expected. Borysenko also states that the public and elected officials are paying much more attention to post-graduation success, *as measured by employment rates and salary levels upon entering the workforce*, than in the past. Additionally, students and their families expect an **immediate** financial return for their investment in a college degree.

In a recent *Inside Higher Education* survey of college Chief Financial Officers, the authors found that with troubled budgets and fewer traditional college-aged students available, retention of current students will be the highest priority of colleges for the next several years. This focus will force colleges to think differently about students’ needs

¹ Ebersole, John. “Top Issues Facing Higher Education in 2014.” Forbes. January 13, 2014.

² Ebersole, John. “Top Issues Facing Higher Education in 2014.” Forbes. January 13, 2014.

³ Borysenko, Karlyn. “Five Critical Issues Facing Higher Education Leaders in 2014.” Edventures. August 12, 2015.

and expectations and will likely have particular impact on those students who attend part-time, or even full-time, and have to work while attending college. Given these data points, Borysenko concludes that students are looking for a different kind of educational experience. These students want an experience that uses technology to enhance teaching and learning while reducing the costs of higher education and the length of time to earn a degree. They also want more distance learning opportunities to accommodate students who cannot fit a traditional approach to education into their schedule.⁴

Funding

The 2008 recession had a devastating impact on the US economy; and, higher education was not insulated from that impact. In 2008 nearly every state in the nation significantly reduced state support for higher education institutions. In 2015, the fiscal support for higher education by state governments had not rebounded since the 2008 collapse. In their 2015 report, Michael Mitchell and Michael Leachman cite significant fiscal realities faced by higher education. For example, “Forty-seven states - all except Alaska, North Dakota and Wyoming - are spending less per student in 2014-15 school year than they did at the start of the [2008] recession.”⁵

So how bad is public funding for higher education? In 2015, the average state spending per student was \$1,805 which was 20% lower than the average state spending per student in 2007-08. While most states had moved toward restoring funding for higher education, almost none had reached pre-recession levels. In fact, 13 states had reduced their funding per student in 2014-15 school year. These reductions in state support forced colleges and universities, particularly those in the public sector, to increase tuition at a greater rate than inflation. In fact, after adjusting for inflation, on average, public universities have increased tuition by 29% since 2007-08 school year. In some states tuition has risen as much as 60% over the same time period.⁶

Elected officials and the public have reacted negatively to tuition increases; however, little has been done to return state support to pre-recession levels in order to stabilize tuition. It does not appear that such support will return in the near future. Donald Heller, Dean at Michigan State University, suggests that public funding may never again be

⁴Borysenko, Karlyn. “Five Critical Issues Facing Higher Education Leaders in 2014.” Edventures. August 12, 2015.

⁵ Mitchell, Michael & Leachman, Michael. “Years of Cuts Threaten to Put College Out of Reach for More Students.” Center on Budget and Polity Priorities. May 13, 2015.

⁶ Mitchell, Michael & Leachman, Michael. “Years of Cuts Threaten to Put College Out of Reach for More Students.” Center on Budget and Polity Priorities. May 13, 2015.

what it was in the beginning of the century. He writes, “It is quite possible that state appropriations for higher education are not going to recover after this recession as they have in the past. Publicly-funded colleges and universities will have to develop innovative solutions to reduce costs, shift revenues and deliver effective programs using new models and technologies.”⁷

Regulations

Higher education is experiencing a crushing growth in regulations. In 2014, the Task Force on Federal Regulations of Higher Education issued its report regarding a growing regulatory environment for colleges and universities. The report cites a tremendous increase in regulations and their negative consequences on campuses. In the report’s introduction the Task Force states, “Over time, oversight of higher education by the Department of Education has expanded and evolved in ways that undermine the ability of colleges and universities to serve students and accomplish their missions. The compliance problem is exacerbated by the sheer volume of mandates.”⁸ Additionally it states that “...official guidance to amend or clarify its rules [are issued] at a rate of more than one document per work day.”⁹

No one would argue that higher education should be without regulations. Certainly with the amount of federal and state funds allocated to support higher education, reasonable regulation is expected. But too much regulation is counter productive, “...regulations serve an important role in ensuring institutional accountability. But requirements that have excessive reach, or that are unnecessarily costly and difficult to implement - or worse still, that hinder student access to college and drive costs up - are counter productive.”¹⁰

Colleges and universities have seen changes coming for some time. While change is not new for Higher Education, the severity of change and the growing attacks on higher education from so many fronts will take a toll on colleges and universities. In a 2011 article entitled *The Changing Landscape of Higher Education* its authors, David J.

⁷ Heller, Donald. “Higher Education Under Attack, MSU Dean Argues.” Michigan State University - Campus Life. April 20, 2012.

⁸ Recalibrating Regulation of Colleges and Universities: A Report of the Task Force on Federal Regulations of Higher Education. 2014. p.1.

⁹ Recalibrating Regulation of Colleges and Universities: A Report of the Task Force on Federal Regulations of Higher Education. 2014. p.1.

¹⁰ Recalibrating Regulation of Colleges and Universities: A Report of the Task Force on Federal Regulations of Higher Education. 2014. p.2.

Staley and Dennis A. Trinkle discuss ten trends that will have a lasting impact on higher education for decades to come. These trends are, perhaps, disruptive to the way that higher education has conducted its business for hundreds of years. Each trend is explored briefly below.¹¹

1. Increasing Differentiation of Higher Education

Higher education has historically been dominated by private universities. To some extent, there is still the general aura that an educational experience offered by a private university is more prestigious than those offered at public colleges and universities. However, that trend is changing; and, students may consider a variety of options for their post-secondary education.

Today there are private elite universities, small private liberal arts colleges, public universities, community colleges, and for-profit colleges - which have grown at a rapid pace. The point is that students have choices. While a college education may have seemed out of reach for some in the past, with so many choices, college is perceived to be much more attainable regardless of one's life circumstances.

Such an array of options for a college education, coupled with a shrinking traditional college-age population, has served to make the higher education marketplace much more competitive. To address this competition, some universities are exploring diversifying themselves. That is, creating separate "lines of business" - for example a research division and an education division - in order to address the diverse missions of large research universities. Southern New Hampshire University is a tremendous example of an institution creating a new "line of business" to address new student markets. (SNHU will be studied later in this paper.)

Additionally, in order to improve their own employees and to keep them from leaving their employment, some large corporations are developing training institutions and calling them "colleges". Some are even offering college credit. "Hamburger U," a training division of McDonalds, has recently offered college credit for its management courses.

¹¹ Staley, David J. & Trinkle, Dennis A. "The Changing Landscape of Higher Education." *Educause Review*. Vol 46. 2011. pp. 15 - 31.

2. Transformation of the General Education Curriculum

Liberal Arts as a curriculum of study is under attack. While colleges are not (and should not be) career schools, elected officials speak about a college education as if it is a “training” program for technical employment. While certainly, a college education should prepare students for a career, college should also expand each student’s experience and broaden his/her understanding of the arts, science, language, humanities, etc., while they prepare for a career.

For those in higher education who speak with employers regularly, many of the skills for which companies ask students to be prepared are developed through liberal arts programs or general education courses. Employers want to hire individuals who have well developed language skills, can write well, have a global awareness, can reason, can perform mathematical functions, can work in teams and demonstrate appropriate interpersonal skills. These skills are often embedded in the liberal arts and general education courses.

Some students may not perceive a value in liberal arts classes. They often see general education as an unnecessary cluster of classes that they must complete in order to earn a degree. Today’s students are very value centric. That is, they only want to do something for which they believe they will receive a direct and immediate benefit. Therefore, higher education needs to position general education as a more valued component of higher education than it is currently viewed by many of its students and elected officials.

3. Changing Faces of Faculty

While higher education has long struggled to recruit more diverse faculty members to its campuses, there is a change that is occurring in faculty all across the country. That change is not necessarily one of diversity, rather it is the increase in the use of adjunct faculty for instruction. When examining the composition of higher education faculty, it is clear that the majority of faculty across all sectors are adjuncts. That may not mean that the majority of courses at institutions are taught by adjuncts. However, a “headcount” of faculty who teach in higher education results in many more adjuncts than full-time faculty on campus.

While the faculty advocates that the quality of education is much higher when courses are taught by full-time faculty; and, that full-time faculty create a college culture that cannot be created by adjunct faculty (who come to campus to teach their classes and leave), parents and students may not value full-time faculty in the same way. Rightly or wrongly, some parents believe that adjuncts bring a more “real world” experience to the classroom, which is seen as more valuable for students; while full-time faculty are sometimes considered shielded from the “real world.” Higher education needs to define the role of adjuncts and to help prepare them better for college teaching.

4. Surge in Global Faculty and Student Mobility

Competition in higher education is much more fierce than in the past. There are fewer traditional college-age students (18 - 24) and these students have more choices for their college education. With the technology that is available today and the anticipated technology for the future, faculty and students can select colleges and universities anywhere in the world as their preferred institution without ever stepping foot on the campus.

Such mobility has the potential to drastically change the college marketplace. For example, colleges in Asia are extremely interested in competing with universities in the United States for international students. Changes in technology may allow more international students from more countries to enroll at colleges and universities that never before participated in the international student market. Such mobility also means that students may choose to take classes from more than one institution during their studies.

Just as students have mobility, faculty too have options to teach at several institutions and may do so from their home. This trend will have a significant impact on faculty recruiting and affect the collegial interactions of faculty on campus for numerous committees, curriculum discussions, research, etc. The market is truly changing.

5. The New “Invisible College”

Related to faculty mobility, higher education is seeing the emergence of what the authors call the “invisible college.” Historically, colleges served as

repositories for information. Different colleges had particular expertise in specific academic areas based on the interest of the faculty. This expertise attracted new faculty with similar interests all of which created concentrated areas of excellence within individual universities.

Today, digital networks of information make access to data and areas of specialty ubiquitous, particularly in the scientific fields. Therefore, researchers no longer need to be in the same physical location to collaborate. This change will reduce the attractiveness of many universities for expert faculty. For example, a faculty member may choose to teach at a small institution in a rural setting, yet collaborate on research with faculty in a large urban environment.

6. The Changing “Traditional” Student

Four-year colleges and universities predominately catered to students who graduated from high school and left home to attend college. This is particularly true of private colleges and universities with traditional stone and brick campuses replete with student dormitories. Public universities too, captured this market. Those who attended college after the age of 25 were considered non-traditional students and often started their education at local community colleges.

Today, all across the country students over 25 years old are becoming the majority of the student population - 60% nationally. These students usually work full-time and often have family obligations. While historically community colleges served this population, other institutions are seeing this market as a means to supplement their shrinking traditional-aged student population. A fairly new sector to higher education, private for-profit colleges, have pursued this new student market quite enthusiastically.

7. The Mounting Pressure to Demonstrate Value

The rising cost of attending a college or university has caused the general public to question the worth of a college education. There have been several studies regarding this issue and the data conclude that those with college educations will experience higher earnings throughout their lives, will be less likely to experience lay-offs, will contribute more to their communities, and are more likely to be physically healthy. Yet, the financial

outlay for many students causes families with already strained resources to question if it is worth it.

Added emphasis by the federal government on “gainful employment” statistics and loan repayment rates immediately after graduation as a measure of the quality of education from each institution can enhance this rising skepticism about college education. Higher education institutions will need to demonstrate value to the public and potential students if they are to remain viable.

8. The Revolution of “Middle-Skill” Jobs

The U.S. economy is becoming more reliant on colleges and universities to prepare students for “middle skill” jobs. These jobs often require post-secondary education but, perhaps, not a bachelor’s degree. It is estimated that nearly half of all job openings within the next five years will be “middle skill” jobs. While this may be good news for community colleges, it may be bad news for the rest of the higher education industry.

Focusing on developing students for work in “middle skill” jobs means focusing on more practical skills and less on theoretical knowledge. Again, this has been a large market for community colleges. However, over the past decade, private for-profit colleges have pursued this market vigorously and grown their enrollments at a much faster rate than community colleges.

9. College as a Private vs. Public Good

Public support for higher education is waning. Some states have seen fiscal support for public higher education institutions devolve from state-supported, to state-assisted, to state-related as funding has experienced significant reductions. There are some public institutions that are considering abandoning public support altogether and becoming private institutions. Such a change would free them of “strings” attached to public funding and provide them with the flexibility they believe that they need to serve today’s students and to become more entrepreneurial institutions.

Today’s climate of mistrust of higher education, lack of a sense of value for college degrees, and what is sometimes viewed as excessive college spending have shifted the sense of public support from an *investment in*

the future to an expense line in the budget. This shift will cause higher education institutions to clearly define their value and reduce costs.

10. Lifelong Partnerships with Students

Many colleges and universities are beginning to explore a new approach to their students after graduation. Rather than considering them only as alumni, they are developing approaches to have former students return to their campuses on a regular basis. This effort to connect with alumni, post-graduation, is based on a desire to have graduates establish a continuous affiliation with their alma mater and to increase alumni giving.

The Wharton School of Business at the University of Pennsylvania is developing an initiative to have their graduates return every seven years for a free weekend-long professional development session. Such a weekend is marketed as a “brain exercise” and one that will keep graduates sharp and growing for the business sector. While true, it will also keep those students returning to campus as their earnings increase throughout their careers.¹²

All of these factors have created a climate for higher education unlike any seen before. It is an unusual climate where elected leaders are looking to higher education for solutions to problems (particularly economic) while chastising institutions as inefficient, costly and unwilling to change. It is a climate of intense pressure to perform and to improve student retention and graduation rates, while holding the line on costs. It is a climate of fostering continuous improvement and innovation, while imposing more regulations. It is a climate of challenge and opportunity for those who can be creative and have a vision for the future.

The Business of Higher Education

Many career educators in higher education do not like to think of colleges and universities as a business. However, colleges are indeed businesses. Depending upon the sector (private, public, community college or for-profit) the business model may vary slightly but every institution has revenue, expenses, profit centers, loss-leaders and other characteristics that are very similar to a basic business model.

¹²Staley, David J. & Trinkle, Dennis A. “The Changing Landscape of Higher Education.” *Educause Review*. Vol 46. 2011. pp 15 - 31.

In her article, *A Race to the Bottom: MOOCs and Higher Education Business Models*, Yoram Kalman applies a simple business model to higher education. She states that there are three components to a simple business model: customer value proposition; infrastructure; and financial.

Customer value proposition is characterized by what an organization has that those who will make purchases want. In order to assure that an organization has what is wanted, those in the organization must understand the characteristics of its customers and their needs. They must understand how those needs can be met by the organization; and, they have to create a value for the customer in order for them choose their organization over a competitor.

Applied to colleges and universities, administrators and faculty should understand the needs of students. Students are looking for a quality education provided in a manner that meets their needs. If a student is a full-time traditional student his/her needs are different from a part-time student who is a single parent working to keep food on the table and raise children while attempting to achieve an education that prepares him/her for the future. Organizations may choose to meet the needs of traditional students, non-traditional students, or both.

Infrastructure is comprised of resources and processes that are used to serve the customer. Buildings, lecture halls, labs, classrooms, equipment, faculty, technology and scholarships are some of the resources that colleges and universities have to help meet the needs of students (customers). Processes include how we interact with students and each other to meet these needs. Thus, processes like registration, budget controls, hiring of faculty, course approvals, application for financial aid all are processes that are used to serve students. If these processes are cumbersome or difficult, students (customers) may look elsewhere. Additionally, depending upon the customer (student) served by the college, those processes may need to be different from sector to sector or market to market.

The *financial* component of the business model consists of a number of factors including pricing, fixed and variable costs, ratios, margins, and revenue sources. These factors will determine the resources that a college

or university has to apply to the other components. Therefore, all three of the components are highly interdependent.¹³

There are those who believe that the traditional business model for colleges and universities is in jeopardy. They pose that there are several factors causing a disruption in the higher education business model that will likely force college leaders to rethink their models in order to survive.

Mark Toner suggests in his article, *The Highly Endangered Higher Education Business Model*, that “long-standing trends: declining state support for public institutions and concerns about sustainability for private colleges”¹⁴ are causing a significant disruption in the operations of many colleges and universities. In a poll conducted for the article, only 13% of the Chief Financial Officers contacted were strongly confident in the business model for their institutions over the next ten years. Citing factors like tuition increases, growing tuition discounts, the shrinking pool of high school graduates, growing student debt and lower family incomes, many CFOs believe that their institutions must find new sources of revenue and cut costs in order to survive.

There are those who project that some colleges will not survive this disruptive change. In a September 2015 article in *Inside Higher Education*, Kellie Woodhouse reports that Moody’s Investor Sector released a recent report predicting that annual college closures will triple by 2017 and mergers will double. The major cause will be lower enrollments and significant tuition discounts. While this projection only represents less than 1% of nonprofit colleges annually, it suggests a new environment for higher education.¹⁵ Looking beyond the studies, closings and consolidations are becoming real. For example, Georgia is preparing to consolidate eight of its thirty-five public colleges. New Jersey is considering an overhaul of its public university system including merging Rutgers-Camden with Rowan University.¹⁶ The State University of New York is attempting to save costs across the system through shared services, group purchasing and shared business processes.

¹³Kalman, Yoram M. “A Race to the bottom: MOOCs and higher education business models.” *Open Learning*. Vol. 29 No 1. 2014

¹⁴ Toner, Mark. “The Highly Endangered Higher Education Business Model.” *Presidency*. Summer, 2015. pp.15-18.

¹⁵ Woodhouse, Kellie. “Moody’s predicts college closures to triple by 2017.” *Inside Higher Education*. September 28, 2015.

¹⁶ DiSalvio, Phillip. “Shifting Landscapes, Changing Assumptions Reshape Higher Education.” *New England Journal of Higher Education*. June 11, 2012.

In a document released by the American Council on Education (ACE) entitled *Beyond the Inflection Point: Reimagining Business Models of Higher Education*, Cathy Sandeen edited several white papers into a concise essay about the challenges facing the higher education business model. In this document, Jane Wellman, a higher education economist, states: “We’ve got real challenges to our value proposition. Consumers and employers are questioning whether what they’re spending on us is worth it. We’ve got a resource problem, particularly in revenues but also in how we use faculty. We have processes that are probably not helping us make decisions. We have real problems in balancing our internal costs and revenues. We have a historic pattern of complicated cross-subsidies that require fairly substantial levels of institutional general fund subsidies that no longer exist.”¹⁷

As stated above, ACE’s document cites many of the same challenges identified by other authors including a lack of public fiscal support, rising tuition levels, eroding trust in higher education, focus on quality and productivity, changing student demographics, high operating expenses, and growing competition among the colleges and sectors of higher education. However, this document also cites opportunities for higher education leaders to explore.

As more colleges and universities migrate courses to partially or fully on-line, there is an opportunity to rethink the physical space of a campus and how that space is designed. Can campuses shrink and provide similar services? Or, can facilities be used in other ways to generate income?

On-line learning itself is also causing challenges and opportunities. As more institutions, public and private, enter the on-line market it will affect several aspects of higher education. First, it will provide students with even more choices for their education. Secondly, as Burke Smith points out “as more purveyors deliver online learning, there will be a downward pressure on prices. Once the market reaches that tipping point, for example, institutions that price on-line learning like they do traditional classroom courses will find it increasingly difficult to maintain those margins.”¹⁸ College leaders will need to explore different funding models for on-line learning and perhaps define it as its own “line of business” and price it accordingly.

¹⁷ Sandeen, Cathy A. editor. “Beyond the Inflection Point: Reimagining Business Models for Higher Education.” American Council on Education. Center for Education Attainment and Innovation.

¹⁸ Sandeen, Cathy A. editor. “Beyond the Inflection Point: Reimagining Business Models for Higher Education.” American Council on Education. Center for Education Attainment and Innovation.

Even traditional pricing will be effected. In fact, some institutions are already examining the opportunity to charge different prices for different programs on their campuses. For example, those programs that are expensive to operate - healthcare, science, engineering, etc. - may be priced significantly different than liberal arts programs that require fewer resources to operate. To some extent, colleges have accomplished a portion of this differentiation in price through lab or course fees. However, on nearly every college campus there is a cross-degree subsidy that uses excess revenues from low-cost programs to fund losses in other high-cost programs. Competition may force a rethinking of this practice.

While changes in the higher education landscape will force significant changes in operations of colleges, demand for higher education is at an all-time high. New student markets are emerging that are looking for new methods of education. To meet this demand, college leaders will need to focus on strategic priorities including academics and improving learning on their campuses. They will need to leverage technology in order to improve efficiencies. They will need to be creative in their processes, infrastructure investments and clearly define their market if they are to maintain a balance between revenues and expenses¹⁹.

As these challenges continue to face higher education, leaders of colleges and universities will need to be more innovative. They will need to examine their business models, their consumer markets, their infrastructures and their processes in order to create a value proposition that positions their institution for a sustainable financial future. But true innovation in higher education is not easy.

Defining Innovation

The term “innovation” is used a great deal in advertising, in speeches and in describing one’s company or organization. It certainly seems that the **term** “innovation” is used much more than the **actual** innovation that takes place. Russell Raath states in his article, *When Innovation Fails*, that “even when organizations are not necessarily doing anything ground breaking, or new, they still call it ‘innovation.’ Just because it just sounds grander.” He continues, “These are not innovations - rather they are simply improvements.”²⁰

¹⁹Toner, Mark. “The Highly Endangered Higher Education Business Model.” Presidency. Summer, 2015. pp.15-18.

²⁰ Raath, Russell. “When Innovation Fails.” Forbes. June 28, 2012.

So what is innovation? In order to have a discussion about innovation and innovative organizations it is important to start with a clear understanding of what it means to innovate. A recognized author on the subject of innovation is Clayton Christensen. He has been cited by presidents of higher education institutions as an inspiration for innovation on their campuses. In his book, *The Innovative University: Changing the DNA of Higher Education from Inside Out*, Christensen (along with his co-authors) defines different types of innovation.

Sustaining Innovation is a process, system or modification that improves an existing product or system. It may make it better, bigger, more efficient and/or more beneficial to the end user. An example of sustaining innovation is a new, updated model of a car that gets better gas mileage.

Disruptive Innovation is innovation that creates significant change. This represents an innovation that “brings to market a product or service that is not as good as the best traditional offerings, but is more affordable and easier to use (particularly in the beginning)”²¹ of the product life. Said another way, “Disruptive innovation replaces the original complicated, expensive product with so much more affordable and simple [product] that a new population of customers....now has enough money and skills to buy and readily use the product.”²²

Two simple examples of disruptive innovation include the introduction of the home computer and Apple’s development of iTunes. The home computer, while not as powerful as mainframes, brought computing to an entirely new market and customer. It put computing power onto the hands of millions, or even billions, of people who did not have (nor need) a computer-related degree to operate the product.

iTunes completely changed the music industry and how consumers purchase music. It took an industry that was struggling with sluggish sales, and rampant with illegal copying of songs and albums, and made it easy for consumers to download albums or a song conveniently and for very little cost. This innovation changed consumer behavior. Like many others, these types of innovations disrupted the status quo of their industries, changed consumer expectations and brought an entirely new market to the table.

²¹ Christensen, Clayton M. & Eyring, Henry J. *The Innovation University: Changing the DNA of Higher Education From the Inside Out*. Jossey-Bass 2011.

²² Christensen, Clayton M., Horn, Michael B., Caldera, Louis, Soares, Louis. “Disrupting College: How Disruptive Innovation Can Deliver Quality and Affordability to Post-secondary Education.” Center for American Progress. Feb. 2011.

Innovation by Design

For many, the thought of being truly innovative seems an unattainable goal. Most people believe that innovation takes place in a laboratory, a research facility or in the garage of a “really smart” person. That is all true; however, innovation is a skill that can be taught and, if managed well, become the culture of an organization. Through a process called *Innovation by Design* or *Design Thinking* (often used interchangeably) any organization can develop break-through ideas and products that provide sustaining or disruptive innovation in the market.

Design Thinking is “...a human-centered, prototype-driven process for innovation that can be applied to a product, service, and business design.”²³ Human-centered means that from the very start, the innovation team needs to understand what the customer wants at a very core level. The team may develop an understanding of the customers’ wants better than the customers, themselves, know them. This understanding doesn’t come from surveys and interviews; rather, it comes from observations and research. It is a very empathetic approach - and not very linear.

A prototype-driven approach can be uncomfortable. It means that the team will brainstorm many ideas that could solve the “problem” (problem being the issue that sparked a need for a new product or service). Brainstorming identifies numerous approaches to potential solutions, no matter how far-fetched they may seem. Then, the team develops inexpensive prototypes of the product, or service, to explore what works and what doesn’t work. The motto for this process is “fail often, fail early, and learn from failure.” If there are no failures in the process, the team is not truly innovating.

On the website www.innovation-by-design.org the authors state that “Design Thinking creates a framework for thinking and problem-solving that can help people tackle any issue.”²⁴ The authors identify several steps in the process (detailed below). However, the process is not linear and those who are using the process may move back and forth among the steps as they work toward the end-goal. This process develops many skills including “empathy, imagination, collaboration, communication and persistence.”²⁵

²³ Cohen, Reuven. “Design Thinking: A Unified Framework For Innovation.” Forbes. March 31, 2014.

²⁴ Innovation By Design website www.innovation-by-design.org.

²⁵ Ibid.

The identified steps in Design Thinking are:

- EXPLORE - identifying and investigating an issue
- FOCUS - Narrowing the field and choosing the most effective site for intervention
- IMAGINE - Brainstorming possible solutions, no matter how far-fetched
- DISTILL - Analyzing ideas and choosing the most promising solutions to pursue
- EVOLVE - Prototyping solutions and refining them based on feedback
- SHARE - Reflecting on those experiments with experts and end-users
- BUILD - Implementing the final idea and making it real²⁶

While the above list of steps suggest a neat and orderly process, Design Thinking does not usually function in such a manner. It is dynamic and can seem chaotic. As Russell Raath states, “Innovation does not come out of a controlled situation. If you want more innovation, allow more chaos.”²⁷ Managers and leaders must encourage risk-taking and celebrate failures, as well as successes, along the way if innovation is to take place.

Examples of Innovative Organizations

While there are numerous innovative organizations, three are identified below that stand out as organizations that embraced innovation from their very beginnings. Perhaps because of the personality of the CEO or perhaps because of the work that they chose to do, innovation became a culture that defined the organization and how they approach development. The businesses identified will immediately invoke a recognition of innovation in their industries.

IDEO

IDEO is a global design company. They are well known for their innovative approaches to problems and have been recognized as leaders in innovation. Working with companies and organizations to make significant improvements to products and services, IDEO uses a team approach to every design. They have been highlighted on [CBS 60 Minutes](#) and have been very willing to share their process with anyone interested.

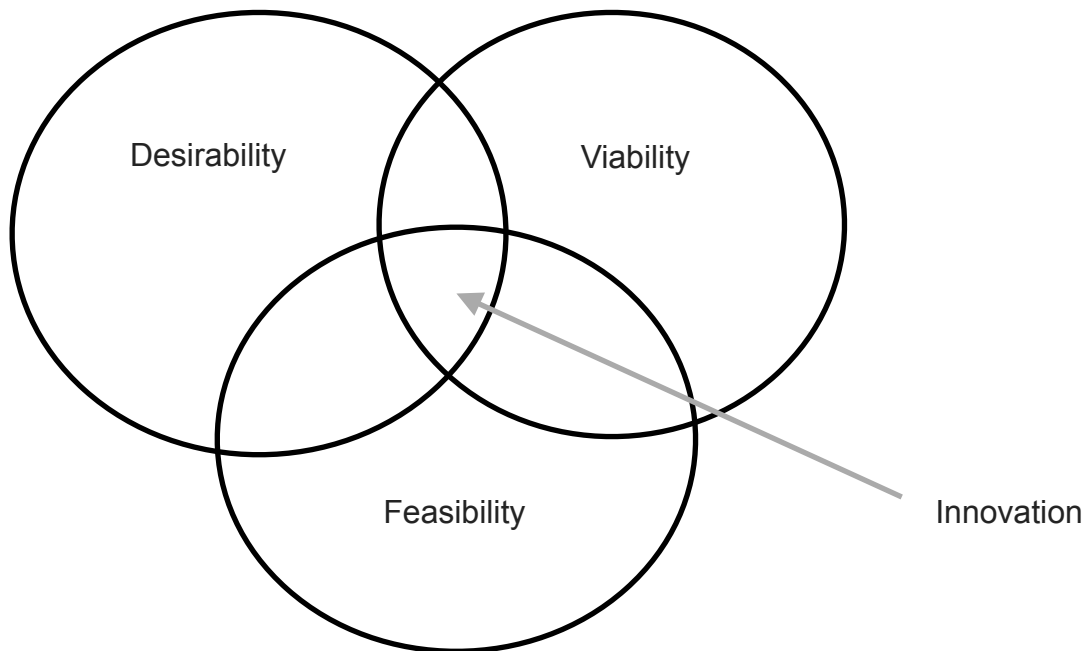
IDEO’s design teams are not a cadre of engineers. They include engineers, but also sociologists, designers, business analysts, psychologists, etc. Teams start by “diving deep” into an understanding of the end-user of a product or service before beginning to design anything. Tim Brown, the president and CEO states that “Design Thinking is a

²⁶ Innovation By Design website www.innovation-by-design.org.

²⁷ Raath, Russell. “When Innovation Fails.” Forbes, June 28, 2012.

human-centered approach to innovation that draws from the designer’s toolkit to integrate the needs of people, the possibilities of technology and the requirements for business success.”²⁸ This approach brings together: what is desirable from a human perspective; what is technologically feasible; and, what is economically viable in order to craft an innovative yet practical solution.

IDEO summarizes these in a simple graph.



Further, IDEO states that for their company, Design Thinking is best thought of as overlapping spaces rather than orderly steps. These spaces, as they call them, are inspiration, ideation and implementation. *Inspiration* is the problem or opportunity that brought out the need for a solution. It is what motivates the team to innovate. *Ideation* is the process of creating potential solutions, developing and testing ideas and creating prototypes to see how these ideas might work. Finally, *implementation* is bringing the prototype from a project to a product in people’s lives.²⁹

Apple

Apple is known by computer users around the world as an innovative company that has created products that bring computing into homes and lives. While not possessing the largest market-share for personal computers, Apple is known for its designs, its user-

²⁸ www.ideo.com

²⁹ www.ideo.com

friendly and intuitive interface, its creativity and for developing an almost emotional bond between consumer and product that has inspired unprecedented brand loyalty. When Apple launches a new product, consumers wait in lines or sit by their computer until the second that they can purchase the product.

For Apple, innovation means developing products that are simple to use and beautiful in every detail. This dedication came from Apple's former CEO Steve Jobs. Mr. Jobs believed in the following six design principles and instilled them in this company:

1. **Craft Above All** - attention to details matter, even those details that many may never notice;
2. **Empathy** - an intimate connection with the feelings of their customer and understand them better than any other company can;
3. **Focus** - perform well on the things that you decide to do and eliminate all of the unimportant opportunities that we didn't decide to do;
4. **Impute** - people form an opinion about a company based on the signals it provides - even the best products will look bad if not presented well - people do judge a book by its cover;
5. **Friendliness** - high-tech products should look friendly, not off-putting;
6. **Finding Simplicity for the Future in Metaphors from the Past** - make things intuitively obvious, the user interface should remind them of things they already know (folders).³⁰

By having this six pillar philosophy to design and innovation, Steve Jobs parleyed his company into one of the most recognized brands in the world. More importantly, he created a culture of innovation and passion that is dedicated to designing products and services that impress customers and inspire consumer loyalty.

Disney

Another company that is a household brand and is well known for innovation in its industry is Disney. In his blog, *Brand Driven Digital*, Nick Westergaard identifies eight innovative lessons from Walt Disney that anyone could apply to his/her company. He believes that Walt Disney was an innovator and design thinker long before others were and was far ahead of his time. He identifies these lessons below:

³⁰ Kuang, Cliff. "The 6 Pillars of Steve Jobs's Design Philosophy." Blog November 7, 2011.

1. **Innovation Requires Action** - “if you can dream it you can do it,” taking action is key and working a good idea until you get it right is well worth the time;
2. **Turn Convention on Its Head** - sometimes reversing the norm is what was needed - the norm was putting animation into live action, Disney put live action inside of animation;
3. **Life’s Challenges Can Open Doors** - Mickey Mouse was created at one of the lowest points of the company’s history - “sometimes a kick in the teeth is just what you needed”;
4. **What’s Next’ Innovation** - never settle - keep moving forward, be curious, and explore new paths;
5. **Diversify!** - use your brand to explore new products that are related to your core business;
6. **Embracing New Media/Multichannel Marketing** - With the expansion of television Disney wanted to be in every home every new character hit multiple media - movies, tv, and theme parks;
7. **Connecting Online and Offline Engagement** - again hit new markets Disney used online (movies and tv) and extended into offline - toys, stuffed animals, and theme parks;
8. **Nothing Matters More Than the Community You Serve** - never lose sight of who you’re doing this for - “We’re not trying to entertain the critics...I’ll take my chances with the public.”³¹

These CEO’s worked in different times and different types of companies - design consultants, high-technology, entertainment - but each fostered a spirit of innovation. That spirit included knowing your customer as intimately as you can; paying attention to details; thinking about what is next; trying things that may fail; and, exploring new opportunities. These companies did not always have it easy. Both Apple and Disney went through dark periods when they nearly went bankrupt. However, dedication to innovation brought them back stronger than before they were failing.

External factors caused these companies, and others, to be at their most innovative. Higher education has never before faced so many external factors that will force college leaders to think differently about their students (customers), stakeholders (elected officials, government agencies, boards) and employees (faculty, staff, administration) and embrace innovation for the future.

³¹ Westergaard, Nick. www.branddrivendigital.com/author/admin/ June 13, 2011.

Challenges to Innovation in Higher Education

Change is difficult in any organization; people are resistant to change. As Lloyd Armstrong writes, “Individuals generally are wary of changes that challenge old assumptions and require new skills to succeed. Organizations are collections of individuals, and thus reflect individual concerns.”³²

Higher education institutions are filled with highly educated people who hold advanced degrees; many of whom are seen as national experts in their fields of study. Additionally, through research at colleges and universities, many of the innovations that we see in thousands of products that are used around the world, were made possible by creative faculty in research labs. These individuals are innovative.

It would stand to reason that with so many creative and highly educated people, colleges and universities would be institutions of innovation. They would have cultures of creativity and disruptive innovation that would establish new standards for education around the world. However, largely, institutions are not innovative.

While college and university presidents all across the country tout the advancements of their institutions, give presentations at conferences, write papers, etc. it appears that much of this innovation on campuses is sustaining innovation at best (small improvements).

In her article, “*Innovations in Higher Education? Hah!*”, Ann Kirschner states that “...when observed from the 20,000-foot level, the basic building blocks of higher education - its priorities, governance, instructional design, and cost structure - have hardly budged.”³³ She suggests that this lack of innovation and change in higher education is hurting the United States in its standing around the world as related to educating its population. At one time in its history, the United States was number one in college degrees held by 25 - 34 year olds. However, in 2010 the United States ranked 12th among 36 developed countries in degrees held by this same age group. While its standing in the percentage of graduates has declined, U.S. college graduates and those who attended college without completing a degree are carrying a whopping \$1 trillion in student debt.

³² Armstrong, Lloyd. “Barriers to Innovation and Change in Higher Education.” TIAA-CREF Institute. www.tiaa-crefinstitute.org.

³³ Kirschner, Ann. “Innovations in Higher Education? Hah!”. The Chronicle of Higher Education. April 8, 2012

To make matters worse, there are those who argue that attending college has no appreciable benefit for students when related to their knowledge and skill levels. While academics highly criticized the book, *Academically Adrift* (Aram & Roksa), it quickly garnered the attention of many elected officials, corporate executives and parents all across the country. In the book, the authors suggest that after four-years of college education, one-third of the students did not improve their skill levels in writing, critical thinking, or analytical thinking.³⁴ This assertion, along with other data that has been cited about student completion rates and skill levels, has led to stakeholders asking many questions about the effectiveness of U.S. colleges and universities.

Such questioning of the current US system of higher education and its effectiveness has resulted in additional regulations, more accountability, pressure on accrediting bodies and a call for institutions to be more innovative in their approaches to education and student completion. Yet on many campuses, as stated above, innovation - true innovation - has been slow coming and difficult to encourage. Why? With so many educated people on college campuses, why has innovating the operations of the university lagged? There seem to be several factors.

Tradition

In order for innovation to take place, there must first be a perceived need for change. An inspiration - that belief that there is a problem to solve - must be the first step in a Design for Innovation process. A challenge for innovation in colleges and universities is that for many in higher education, there is nothing wrong. That is, for decades, the United States' higher education system has been identified as the global model for universities. Indeed, for many countries, attaining a degree from a U.S. college or university is still held in higher regard than a degree from a university within their own country.

Regardless of any external pressure for change, many within the academy of higher education continue to rest on the reputation of their institutions. Ann Kirschner writes, "Universities have been protected by the prestige of their brands and lack of any real competition."³⁵ Such dedication to one's own brand and reputation is not unique to U.S. colleges. In the *Turkish On-line Journal of Distance Education*, Gail and Donald Caruth write that "A historical strength of higher education has been its success in preserving the traditions, culture, values and customs. This coupled with the character of

³⁴ Kirschner, Ann. "Innovations in Higher Education? Hah!" The Chronicle of Higher Education. April 8, 2012.

³⁵Kirschner, Ann. "Innovations in Higher Education? Hah!" The Chronicle of Higher Education. April 8, 2012

conservatism, when it comes to management, resists change.”³⁶ They continue by suggesting that perhaps institutions suffer from change overload as well. “Universities and colleges are asked to confront change on many fronts - technology, diverse students, competition, financial burdens, globalization, etc. Traditional models of management are too slow and too inefficient to keep up.”³⁷

Structure

The very structure of colleges and universities may create a resistance to innovation on campuses. Unlike most corporate models with a more singular management structure: “College and universities tend to be loosely coupled systems. Minor changes may come easily while major changes are much more of a challenge.”³⁸ These loosely associated systems may be as vast as separate “colleges” within a university or as small as separate academic departments within a college that may or may not interact with other departments in the institution. These separations create numerous pockets of autonomy within the academy on campuses.

The structure of traditional college governance on campuses can also create resistance to innovation. Unlike nearly any other organization, the concept of “shared governance” is engrained in the culture of higher education. Shared governance is a system, or culture, that “...attempts to balance maximum participation in decision making with clear accountability.”³⁹ While shared governance provides members of the academy an opportunity for input into decisions made on the university campus, it can also cloud the decision making process and slow down innovation.

Confusion about shared governance can lead to stagnation with regard to innovation. Some faculty believe that shared governance means that “...faculty have the primary role of governing the university and that administrators are appointed to spare them from the more distasteful managerial labor”⁴⁰ required to operate the organization. Not managed well, poorly run shared governance models can establish an adversarial relationship between faculty and administration which stagnates an institution.

³⁶ Caruth, Gail. & Caruth, Donald. “Understanding Resistance to Change: A Challenge for Universities.” Turkish Online Journal of Distance Education. April, 2013. Vol. 14, No. 2. pp.12 - 21.

³⁷Caruth, Gail. & Caruth, Donald. “Understanding Resistance to Change: A Challenge for Universities.” Turkish Online Journal of Distance Education. April, 2013. Vol. 14, No. 2. pp.12 - 21.

³⁸Caruth, Gail. & Caruth, Donald. “Understanding Resistance to Change: A Challenge for Universities.” Turkish Online Journal of Distance Education. April, 2013. Vol. 14, No. 2. pp.12 - 21.

³⁹ Olson, Gary, A. “Exactly What is Shared Governance?” The Chronicle of Higher Education. July 23, 2009.

⁴⁰ Ibid.

John Tagg suggests that the functioning of shared governance within its own organization (College Senate) may not lend itself to innovation either. Often when a discussion of major change is broached, a task force or committee is formed to conduct research, discuss it and bring back recommendations to the larger body. That committee reads about the change, benchmarks institutions that may have made the change and presents thoughtful recommendations to the body. Those who spent no time on the matter vigorously object to the discussion, sometimes based on procedures and sometimes based on substantive information. The committee members making the recommendations are upset by the reaction of their colleagues. The objectors question the motives of the committee and, perhaps, accuse them of being “puppets” of the administration. Hard feelings are formed on both sides and those not involved find the whole exchange disgraceful. Thus, few want to participate in discussions of change anytime in the future.⁴¹ This exchange within the College Senate structure may, intentionally or unintentionally, serve to maintain the status quo.

Additionally, the campus itself may hinder innovation. Colleges and universities have made significant investments in the infrastructure needed for a traditional campus setting. Such infrastructures include: buildings, dorms, classrooms, athletic facilities, fields, technology, etc.; that create significant overhead in the business model. It has become clear through various research projects that “...when an innovation in resources or processes that could be used in making the product appears on the scene, it is likely to be adopted only if doing so won’t change the business model; that is, it is highly unlikely to be adopted if doing so would unbalance and thus force a significant change in the business model”.⁴² So whatever changes or innovations are sought, dealing with the costs of the current infrastructure remain a challenge.

Funding

Financial support for higher education is in its most conflicting position in recent history. The federal government has increased its support through PELL grants, veterans’ benefits and student loans to an unprecedented \$150-plus billion annually. However, during the 2008 recession, state support for higher education, particularly public colleges and universities, decreased at an alarming rate. Since that time, many states have again increased their public support. However, for many states, it has not yet

⁴¹ Tagg, John. “Why Does the Faculty Resist Change?” *Change: The Magazine of Higher Learning*, January - February, 2012.

⁴²Armstrong, Lloyd. “Barriers to Innovation and Change in Higher Education.” TIAA-CREF Institute. www.tiaa-crefinstitute.org.

reached pre-2008 levels and many believe that it is not likely to increase significantly in the near future.⁴³

While more funding is not always the answer to every question, innovation in higher education cannot be meaningful without changes in the funding *structure* of higher education. Federal funding for students, primarily in the form of PELL grants and student loans, remains very traditional in its approach to higher education. Katrina Reichert, in a 2012 Policy Bulletin on federal financial aid writes, “The evidence is clear that the traditional approach taken by colleges - semester length courses, a focus on seat time, and long, sequential coursework - does not produce the desired student outcomes.” She continues, “However, federal financial aid rules and processes are built on the old assumptions of traditional courses and semesters, so some of the structural changes [that are needed] clash with those rules.”⁴⁴ Colleges and universities cannot risk funding in order to innovate, but must innovate if they are to thrive long-term. This is truly a conundrum for the entire higher education industry.

Stated another way, the allegiance to the traditional way of funding students enrolled in colleges and universities quells innovation. Those institutions that do attempt innovations find themselves developing “work-arounds” to the rules in order to serve students. These work-arounds can include developing “shell courses” that house short instructional modules through which students can move at their own pace, creating manual processes that are labor intensive for the administration, or customized reports that are outside the normal tracking system for students. Such work-arounds can often confuse students and place them in jeopardy when they do not fully understand the choices that they are making in order to gain the aid they need for these unique approaches to learning.⁴⁵

Faculty

Like shared governance, faculty of any institution can propel the institution forward or hold it back. As stated above, the overall process of higher education has not changed in hundreds of years. It is well recognized that without the faculty of an institution firmly committed to innovation at a college or university, any efforts to significantly change the institution are likely to fail. Sometimes getting faculty buy-in to innovation can be

⁴³Kirschner, Ann. “Innovations in Higher Education? Hah!”. The Chronicle of Higher Education. April 8, 2012.

⁴⁴ Reichert, Katrina. “Aid and Innovation: How Federal Financial Aid Policy Impacts Students and How State Can Respond.” Policy Bulletin. June 2012.

⁴⁵Reichert, Katrina. “Aid and Innovation: How Federal Financial Aid Policy Impacts Students and How State Can Respond.” Policy Bulletin. June 2012.

difficult. John Tagg explores faculty resistance to change in his article “*Why Does the Faculty Resist Change?*”.

Tagg is quick to point out that rather than attribute such resistance to change as a flaw in the faculty members, it is important to explore the structure of faculty work and not the personalities of faculty in order to gain a better understanding of the issues. The structures of higher education, as it relates to faculty, may foster a sense of status quo rather than innovation.

There is a dichotomy in many faculty positions in higher education and it reflects the dual purpose of many institutions. That dichotomy is the balance (or imbalance) between research and teaching. While much of the current criticism about higher education would reflect the teaching role of faculty, most of the current reward systems in higher education (particularly big name universities) are based in research. Tagg cites a nationwide study of faculty salaries conducted by James Fairweather, of the Pennsylvania State University, in which this is very clearly exemplified. He found that those who spent more time on research and published the most, received higher salaries than their colleagues who were focused on teaching - regardless of the program area.⁴⁶ It is no wonder then that faculty attitudes reflect the perception that research is much more valued in higher education, even at institutions with strong teaching histories.⁴⁷

Faculty have and value their autonomy within the structure of the college and university environment. The Fairweather study also found that faculty believe that they are “safer” if they keep to themselves and maintain the status quo. He found that “...faculty believe that assistant professors who devote time to teaching and curricular reform are at risk. Department chairs consistently warned assistant professors to stay out of coalition activities in spite of the commitment by deans”⁴⁸ to improve curriculum and pedagogy. This suggests that faculty have a stronger affiliation with their discipline and department than with the college or university (a finding in numerous studies of faculty life) which keeps them from participation in college-wide innovations.

⁴⁶ Tagg, John. “Why Does the Faculty Resist Change?” *Change: The Magazine of Higher Learning*, January - February, 2012.

⁴⁷ Ibid.

⁴⁸ Tagg, John. “Why Does the Faculty Resist Change?” *Change: The Magazine of Higher Learning*, January - February, 2012. .

Even in community colleges where there is little-to-no emphasis on research, there is a tremendous value placed on autonomy by the faculty “....teaching at most community colleges creates an environment in which autonomy itself becomes the reward, a form of control, an endowment.”⁴⁹ Teaching in higher education can become a highly personalized and individual sense of self. The privacy of the classroom and the interaction with students inside the classroom can become a means of control and eventually a personal entitlement for a faculty member. Therefore, talk of innovation and change in the very structure of how education is delivered can be perceived as an attack on the quality of a faculty members personal work. They may fear a loss; although they may not be able to articulate what that loss might be.⁵⁰

Accreditation

In the United States, institutions of higher education are accredited by regional (or occasionally sector) accrediting agencies. The process of accreditation is essentially a peer review process and accreditation is considered voluntary. However, without accreditation, institutions are not eligible for federal financial aid for students which places a great deal of pressure on colleges and universities to comply. Over the past two decades or more the federal government has questioned the rigor of a “peer review” process and thus, accreditation has been placed under tremendous pressure to increase its regulatory responsibility and improve its monitoring of colleges and universities.

Some even argue that the accreditation process is completely broken. Senator Marco Rubio (R-FL) stated that “We have a broken accreditation system that favors established institutions while blocking out new, innovative and more affordable competitors.”⁵¹ (The competitors to which Senator Rubio refers are the for-profit institutions that have entered the higher education market and have been strong contributors to the Senator’s campaigns.) None-the-less, there is a sentiment that accrediting bodies focus on processes and traditional structures, rather than outcomes and impact. They suggest that this focus keeps institutions from being innovative in their approaches to education and learning in order to remain in compliance with accreditation standards.

⁴⁹Tagg, John. “Why Does the Faculty Resist Change?” Change: The Magazine of Higher Learning. January - February, 2012.

⁵⁰ Tagg, John. “Why Does the Faculty Resist Change?” Change: The Magazine of Higher Learning. January - February, 2012.

⁵¹ Higher Education Accreditation Concepts and Proposals. Senate Committee on Health, Education and Labor & Pensions. U.S. Senate. p. 5.

There is also a concern with the existing structure of accrediting bodies themselves. The specific accrediting organization that accredits institutions within a region is solely based on geography. Such a geographic approach leads to tremendous diversity of institutions under one organization. For example, the Higher Learning Commission of the North Central Association is responsible for the accreditation of close to 1,000 institutions from 19 different states. These institutions range from large to small, from community colleges to research institutions, and from public to private colleges. Therefore, standards are broadly written to serve a diverse group of institutions. Some argue that such an approach leads to diluted standards that focus on processes and not outcomes which may deter innovation.⁵²

Government

As with funding and accreditation, government, itself, may be an impediment to innovation in higher education. Colleges and universities have many “masters.” Institutions are responsible to their governing boards, to the state education department in which they are located, to a system administration office (where applicable), to their accrediting organizations and to the federal education department. Each of these organizations, governments and authorities has expectations, regulations, reporting requirements, directives, policies, laws and advisories regarding the operation of colleges within their jurisdiction. As Lloyd Armstrong put it, “The first thing to remember about government is that it is all about politics and power. These attributes tend not to be favorable to innovation.”⁵³

While accrediting organizations provide colleges and universities their accreditation and therefore access to federal funds, states provide approvals to operate within their borders, approval of curriculum, state funds and may set standards for faculty. Also, state regulators often oversee issues of competition within their states. For example, community colleges in New York State have service delivery areas in which they may operate their programs. A desire to reach new student markets may have a community college attempting to operate outside of its designated service delivery area. The political climate will push them back into their home market rather quickly.

⁵²Higher Education Accreditation Concepts and Proposals. Senate Committee on Health, Education and Labor & Pensions. U.S. Senate. p. 7.

⁵³Armstrong, Lloyd. “Barriers to Innovation and Change in Higher Education.” TIAA-CREF Institute. www.tiaa-crefinstitute.org. p.9.

There is also an influential role played through politics in higher education as it relates to competition, funding, grants, sometimes student admission to certain programs, and college personnel to be hired. Two recent examples of political influence relate to San Francisco City College and Bristol University.

In 2014, the accrediting organization for the SFCC, Western Association of Schools and Colleges Accrediting Commission of Community and Junior Colleges, voted to revoke SFCC's accreditation due to a number of concerns the agency had regarding its operations. Such action would remove SFCC's eligibility for federal financial aid and leave close to 80,000 students without the ability to continue their studies. As one might expect, calls were made to elected officials and there was significant political backlash. Ultimately the California Supreme Court determined that it will not overturn the Commission's decision. However, it did determine that the Commission broke the law in the composition of the visiting teams as they "had too few academics" on them; and, that the 19 member Commission itself may be in question since it has members "who should not have been on the Commission" because they were selected under an old process.⁵⁴

Similarly, in December, 2015 the Accrediting Council for Independent Colleges and Schools (which primarily addresses the for-profit education market) attempted to impose its most significant sanction, denying reaccreditation, to Bristol University - a small for-profit institution in Anaheim, California - based on its finding of 24 deficiencies. Bristol offers certificates, bachelor's and master's degrees. In May, 2016 a federal judge blocked the ACICS's attempted action based upon the institution's enrollment of "underserved, low-income and underperforming students who have been unable to obtain admission to other institutions of higher learning."⁵⁵ The court said such action would cause "irreparable harm" to the institution.

While politics saved SFCC and Bristol University from closing, when political interests are involved, innovation is difficult. Innovation requires the opportunity for failure. Failure may reflect poorly on elected officials and cost votes; therefore, keeping with tradition is a safer path for colleges and universities. Saving SFCC and Bristol may have helped thousands of students have a place to go; but it may also have reinforced the belief that the status quo is working and dampen any desire for innovation.

⁵⁴ Egelko, Bob. & Asimov, Nannette. "City College of S.F. accrediting commission broke the law, judge says." SFGATE. January 16, 2015.

⁵⁵ Fain, Paul. "Controversial accreditor ACICA tries to shut down a for-profit but was blocked by judge." Inside Higher Education. May 4, 2016.

Regulations

As the federal government has increased student aid to its current levels - over \$150 billion - so, too, has it increased regulations on higher education. A recent governmental report states that, "Over time, oversight of higher education by the Department of Education has expanded and evolved in ways that undermine the ability of colleges and universities to serve students and accomplish their missions. The compliance problem is exacerbated by the sheer volume of mandates."⁵⁶ The plethora of regulations and the rate at which guidance memos are issued serve to force colleges and universities away from a culture of innovation, toward a culture of compliance.

While government officials cry out for colleges and universities to be more innovative in their approach to education, to be creative in addressing student completion and to experiment with practices that improve student learning, regulations stifle much of that innovation. Jonah Goldberg summarizes it as follows: "In Silicon Valley, where government touch is light, we can see the rapidity of innovation at work. In healthcare, education, and other areas where the government's hand is heavy, we see stakeholders holding on for dear life."⁵⁷

Moreover, complying with regulations is not only detrimental to innovation, it is expensive. The time, staff hours, reporting costs, audits, and, in some cases, consultants needed to comply with all of the regulations can cost institutions millions of dollars. Jack Preston states that, "...compliance costs money. But then how can positive change be driven forward when creative ideas are checked at every stage and not given a fair chance to flourish?"⁵⁸ While Mr. Preston is writing about the private sector and the challenges facing innovation (Bitcoin vs Financial Regulations; Airbnb vs. Hotel Taxes; Tesia vs. State of NJ; Uber vs Taxi Commission; 23andMe vs US Government) the concept can be applied to higher education as well.

That is not to say that higher education should have no rules. The Task Force on Federal Regulations of Higher Education noted that, "Regulations serve an important role in ensuring institutional accountability. But requirements that have excessive reach,

⁵⁶ "Recalibrating Regulation of College and Universities." Report of the Task Force on Federal Regulations of Higher Education. 2014. p. 1.

⁵⁷ Goldberg, Jonah. "Innovation vs. Regulation: When entrenched interests face competition, wealth and opportunity can skyrocket." National Review. February 26, 2014.

⁵⁸ Preston, Jack. "Regulation vs. innovation: five key battlegrounds." virgin.com. April 10, 2014.

or that are unnecessarily costly and difficult to implement - or worse still, that hinder student access to college and drive costs up - are counter productive.”⁵⁹

Performance Funding

Interrelated to funding and regulations is the notion of performance funding. There is a movement in the United States to link funding of higher education institutions, particularly public sector, to performance measures. Because many of the outcomes of higher education may be hard to measure in a meaningful way, the proposed (and in many states implemented) measures tend to be traditional measurements of things like graduation rates, retention rates, job placement rates, student loan default rates and other factors that may, or may not, reflect the quality of education at any given college or university. They are, however, measures that the general public can understand. Thus, with little political downside, performance funding is growing in popularity among elected officials.

A 2014 article in the Journal of Higher Education stated that, “While performance funding is a popular policy instrument that has support from many high profile national higher education advocacy groups and political entrepreneurs, there is little evidence this is an effective strategy for improving college completion.”⁶⁰ More states are adopting these measures and allocating a portion of state appropriations to them. Tennessee was the first to adopt performance funding in some manner in 1979; yet, there is little evidence that the state has advanced in its higher education standing.

While some argue that only through these types of performance standards will higher education graduation rates improve, research does not support this assertion. In a 2014 study of a performance-based funding model enacted in Pennsylvania the results again indicated a weak correlation between funding and performance measures. “While state officials expected the program to have a positive impact on completions, results from this study indicated that these outcomes were not achieved.”⁶¹

Performance funding, accreditation, government, regulations, funding, tradition and structure - all combined - work against creating culture of innovation on college and

⁵⁹“Recalibrating Regulation of College and Universities.” Report of the Task Force on Federal Regulations of Higher Education. 2014. p. 2.

⁶⁰ Hillman, Nicholas W., Tandberg, David A., Gross, Jacob P.K. “Performance Funding in Higher Education: Do Financial Incentives Impact College Completions?” Journal of Higher Education. Vol 85, No. 6. (Nov. - Dec. 2014). p. 850.

⁶¹ Ibid.

university campuses. While higher education touts its creativity, innovation and new approaches to learning have not taken place in the current environment.

Innovative Colleges and Universities

Despite all of the influences working against real innovation in colleges and universities, there are some institutions that have been recognized as innovative. However, it is important to understand how the authors defined innovation when discussing the institutions selected. Were the “innovations” truly disruptive or were they improvements within the existing system that enhanced student learning? Did they have anything to do with improving college operations? While improving student learning is always a good thing, it may or may not be the type of innovation that transforms higher education models in a disruptive manner. That is, it may not have provided a new product, process or service that made higher education available to markets that were heretofore unserved.

In its September 16, 2015 issue of *U.S. News and World Report*, Delece Smith-Barrow cites the “Top 10 Most Innovative National Universities.” Each of these universities demonstrated terrific achievements. However, **none** of these achievements were related to student learning, effective operations or improvements in approaches to higher education. These achievements were primarily research related. They are as follows:

- Drexel University (PA) - created “LiveNote” and application that provides concert goers with historical and musical data;
- Harvard (MA) - developed a new study on cell phone data that can use information to track the transmission of infectious diseases;
- University of Ann Arbor (MI) - developing technology that allows cars to “talk” to each other;
- Duke University (NC) - an algae study that will drive down the cost of extracting oil from plants;
- Northeastern University (MA) - national security research;
- Georgia State University (GA) - developed a new survey to better follow the prevalence of sexual assaults on campus;
- University of Maryland - Baltimore (MD) - developed a virtual reality system for research in biology, math, engineering, visual arts, and digital humanities;

- Massachusetts Institute of Technology (MA) - developed a more user-friendly 3-D printer;
- Stanford University (CA) - creating objects for everyday use;
- Arizona State - Tempe (AZ) - a study on how refugee camps, military camps, and neighborhoods form; a study of domestic violence, and research that affects our daily lives.⁶²

Again, the above listed innovations are very interesting. They advance technologies, influence our lives, provide a better understanding of the human condition and perhaps keep us safer. However, they do not transform higher education. Such a list illustrates the point that components of institutions of higher education, and the people that work within them, are innovative. However, that innovation tends to be externally focused.

That is not to say that colleges and universities never innovate for the betterment of students. Matt Connolly highlights several innovations at institutions across the country in an article entitled “*America’s Ten Most Innovative College Presidents.*” He states that innovation can be difficult; “Unfortunately, most of them [college presidents] like most humans, tend to accept whatever definition of success their tribe and surroundings tell them.”⁶³ However, some presidents resist accepting the current performance of their institutions as the best that can be achieved. Connolly recognizes the importance of the role of the president in leading such innovations. He states that, “...presidents are hugely important actors because their visions - and ability to carry out their visions - determine whose interests really get served.”⁶⁴

Mr. Connolly cites the following presidents, and their institutions, as truly innovative:

- *Mark Becker* - Georgia State University - Used “big data” to greatly increase the success of racial minorities, low-income, and first-generation college students. He increased the six-year graduation rate from 32% to 53% while eliminating the gap between students of different races through proactive advisement;

⁶² Smith-Barrow, Delece. “Top 10 Most Innovative National Universities.” U.S. News & World Report. September 16, 2015.

⁶³ Connolly, Matt. “America’s Ten Most Innovative College Presidents.” Washington Monthly. Sept/Oct, 2015.

⁶⁴Ibid.

- *Maria Klawe* - Harvey Mudd College - Bridged the gender gap in technology from 1 in 10 girls in computer science classes to 4 in 10. She encouraged girls to take computer science as a major or minor and hired women faculty so that 6 of the 15 computer science faculty are women;
- *Diana Natalicio* - University of Texas - El Paso - Grew research funding at the institution from \$6 million to \$84 million. She improved student outcomes at the institution while increasing the participation of Hispanic students from 55% of the student population to 80%;
- *Michael Crow* - Arizona State University - Grew ASU to 80,000 students while increasing the graduation rate. The institution also enrolled more students below the poverty line than before his arrival;
- *Catharine Bond Hall* - Vassar College - Focused on providing access to an elite college by shifting the student population from 40% financially aided students to 60%. She also increased students of color from 20% to 40% of the student population;
- *Paul LeBlanc* - Southern New Hampshire University - Grew the institution tremendously while creating a non-traditional system of education that provides a great deal of student support. Students may complete a bachelor's degree for around \$10,000;
- *Michael Sorrell* - Paul Quinn College - Took this 150 year old, historically black institution from the brink of closing to successful operations. He disbanded the football team to focus on academics and student success. He turned the football field into a farm where students work (for pay) and grow produce that is sold to local grocery stores and restaurants. Students learn farming and business skills while earning income for college. He lowered the tuition from \$23,800 per year to \$14,275;
- *John Hitt* - University of Central Florida - Grew his institution to 60,000 students while increasing minority enrollments. He created a system called "Direct Connect" that guarantees admission to those students who earned an associates degree;
- *Sandy Shugart* - Valencia College (community college) - Eliminated late enrollments in order to "recapture" the first two weeks of instruction. Students are required to develop a graduation plan during their first semester of study;

- *Cheryl Hyman* - City College of Chicago - Focused the institution on career programs and placing graduates in jobs and nearly doubled its graduation rate which was 7%.⁶⁵

The above serve as good examples of how presidents can improve the performance of their institutions. These presidents examined the performance of their institutions and implemented programs to address student learning, graduation rates, cost of education and the improvement of minority and first-generation college students at their institutions. These improvements have been successful and are impressive in their impact on each institution. However, only a few of them were truly disruptive.

Four institutions of higher education rise to the top of innovative colleges and universities. Their approaches to serving students, their educational models to improve student success and their approach to access to higher education for students are, or have the potential to be, disruptive innovation in the higher education industry.

An interesting point to make about these four institutions of higher education is that each found its own path to innovation. Each used its own culture and strengths to determine how it would shape its future and become a unique institution. There is not a singular approach to innovation in higher education and learning.

University of California: Stanford

Stanford University has developed a reputation for excellence in innovation, liberal arts and research. Looking more deeply, one can see that Stanford University has developed a culture of innovation and entrepreneurship that is not likely to be matched by any other university. Stanford's ability to help graduates launch new businesses is unparalleled. Beth McMurtrie writes that closely tied with Silicon Valley, it is estimated that some 39,900 active companies have been started by graduates from Stanford.⁶⁶

In a time when governments are looking to higher education to spark and advance the economy, Stanford seems to be an institution that embodies that spirit of innovation. Unlike institutions that conceal themselves from the "outside world" in order to protect an academic environment, Stanford welcomes the interaction with the business world. In fact, Stanford offers faculty members opportunities to take a two-year leave in order to work in industry or start a venture company. The belief is that those faculty will bring

⁶⁵Connolly, Matt. "America's Ten Most Innovative College Presidents." *Washington Monthly*. Sept/Oct, 2015.

⁶⁶ McMurtrie, Beth. "Inside StartupU: How Stanford Develops Entrepreneurial Students." *The Chronicle of Higher Education*. October 30, 2015. A30 - A34.

back to the classroom these corporate experiences and be better equipped to help students understand real-world applications to the lessons provided on campus. However, when a faculty member returns to campus, he/she must relinquish all day-to-day operations of any company that they may have started and focus their attention on their responsibilities at the University.

Faculty are also allowed the equivalent of one day per week to participate in consulting activities. This too, is designed to keep faculty with an anchor in the “real-world”. They may not, however, split their time between Stanford and another employer. They must be dedicated to the mission and operations of the University.

When asked the question of technical education or liberal arts, Stanford’s answer seems to be both. The faculty at Stanford have developed a culture that brings technical education and liberal arts together in such a way that students value both. Through a deep-seeded dedication to teaching problem solving and critical thinking, every student at Stanford is immersed in interdisciplinary studies that combines technical education with liberal arts and humanities.

The University’s focus on entrepreneurship is not just technical in nature. Graduates of Stanford have also started numerous not-for-profit organizations to help communities. But overall, students state that “the most value they’ve gotten from their education at Stanford has come from interdisciplinary work.”⁶⁷

To strengthen its dedication to the teaching of innovation and entrepreneurship, Stanford started the Hasso Plattner Institute of Design at Stanford. Focusing on teaching Design Thinking, this Institute (also known as *the d.school*) is a center for innovators and those who want to think like innovators. Students and faculty from medicine, engineering, law, business, sciences, humanities and education come together to learn innovative thinking and how to solve real-world problems through a human-centered approach. *The d.school* is open to Stanford students and any others who wish to learn innovation through a variety of continuing education courses. It also offers a two-year master’s degree through the Department of Mechanical Engineering.⁶⁸

⁶⁷ McMurtrie, Beth. “Inside StartupU: How Stanford Develops Entrepreneurial Students.” *The Chronicle of Higher Education*. October 30, 2015. A30 - A34..

⁶⁸ Website - dschool.stanford.edu

Southern New Hampshire University

Led by President Paul LeBlanc, Southern New Hampshire University went from a small 2,000 student private college with declining enrollments, poor name recognition and struggling finances in 2007 to a 34,000 student institution with national name recognition in 2014. All of this was accomplished by rethinking the design of higher education. President LeBlanc has stated that, "...the business models implicit in higher education are broken."⁶⁹

Recognizing that transforming the core of an institution is extremely difficult, President LeBlanc found a new path. He created the College of Online and Continuing Education at SNHU. This new College was designed to work within the University, but outside of the traditional structure. While leaving the core of the small institution in tact, this new College has a very different business-model approach to higher education.

Although all courses are approved by the University's governing body, implementing these courses, once approved, takes a very nontraditional path. All courses for the College of Online and Continuing Education are designed by a production team. The College holds a 2 - 3 day workshop with subject matter experts, academic stakeholders, and team members to create the curriculum. Then, focusing on on-line courses, the production team creates a "master course" which is then copied in order to offer the number of sections required for any given semester. Faculty who will teach the course sections are provided the materials three weeks before the classes start in order to prepare their lessons and approaches with students.⁷⁰

Staffing for the College of Online and Continuing Education is an innovative model as well. Offering 180 programs to 34,000 students, the focus of the College is on customer service. The College has 160 admissions counselors who staff the phones seven days per week. They have designed a website that allows students to conduct their entire interactions with the College on-line. Students who click on the website to request more information receive a phone call, generally within 9 minutes. If the potential student has attended a college before, SNHU will track down any transcripts from other institutions and pay to have them sent to SNHU.⁷¹

⁶⁹ Kahn, Gabriel. "The Amazon of Higher Education: How tiny, struggling SNHU has become a behemoth." The Slate. January 2, 2014.

⁷⁰ Raths, David. "How Southern New Hampshire University Develops 650-Plus Online Courses Per Year." Online Learning. Campus Technology. December, 2014.

⁷¹ Kahn, Gabriel. "The Amazon of Higher Education: How tiny, struggling SNHU has become a behemoth." The Slate. January 2, 2014.

Courses are eight weeks, rather than the traditional fifteen in order to keep students moving through their programs at a faster pace. Students who have not logged on in the first week of class are flagged for the instructor to call and speak with them personally. While almost all courses are taught by adjunct faculty members (2,700 of them), SNHU is experimenting with creating new full-time positions starting in 2015.

SNHU's approach to full-time faculty positions in the College of Online and Continuing Education is also innovative. The College is experimenting with this new full-time model in an effort to determine if student performance and retention improves. These new full-time faculty will teach 20 courses per year; four at a time for five eight-week terms. They will grade assignments and provide feedback to students for which they will be paid \$55,000. They will do all of their work from their home. There are no committee assignments, no research requirements, no faculty meetings, and no tenure for these new faculty positions.⁷²

SNHU is also experimenting with competency based education; an approach it calls "College for America." This approach requires no courses and no faculty. Rather, students must demonstrate competency in subject matters through a variety of evaluations of each competency. Students must pass 120 competencies to earn an Associates Degree.⁷³ While competency based education has been around for sometime, it has been extremely difficult to gain approval to offer such an approach. Approval must be granted by the Secretary of Education and the institution's accrediting body. SNHU was endorsed by the U.S. Department of Education and seems to be leading the development of this approach.⁷⁴

The SNHU model demonstrates a disruptive innovation and is truly fast-paced. It has changed the notoriety of SNHU across the country and brought to the institution a market that it never before served. It could be a model for several small colleges to explore.

⁷² Kolowich, Steve. "Southern New Hampshire University Designs a New Template for Online Faculty Jobs." *Chronicle of Higher Education*. Vol. 60, Issue 35. May 16, 2014.

⁷³ Kahn, Gabriel. "The Amazon of Higher Education: How tiny, struggling SNHU has become a behemoth." *The Slate*. January 2, 2014.

⁷⁴ Gomez, Cynthia. "Competency-based education gains momentum despite complex regulations." *Recruiting and Retaining Adult Learners*. Vol. 16, Issue 9. June, 2014.

University of Phoenix

The University of Phoenix is almost synonymous with “for-profit college” and was started by a man who hated the traditional higher education system. Its presence has been a disruptive innovation in higher education; and, to understand the University, it is important to understand its founder. John Sperling had a difficult life as a child of a very poor family. Despite that extremely rough start, Sperling was able to earn a bachelor’s degree from Reed College and a PhD from Cambridge. After graduation he became a faculty member at San Jose State in California. Sperling wrote about being a professor as “all that education prepared him for was life as a professor.”⁷⁵ He hated it.

A socialist, Sperling was passionate about the faculty union at San Jose State and became its president. In 1968, he organized a faculty strike that ultimately failed; very few faculty were willing to participate in any strike. That experience codified his hatred of the higher education establishment. He wrote that the experience served as “one of the most liberating experiences of my life.”⁷⁶ He decided he no longer cared what anyone in higher education thought of him.

In 1970, he decided that adults, particularly working adults, needed a new way to gain a college degree. Traditional colleges and universities were not interested in working adults. He believed that adults lacked access to higher education because of the way that courses were scheduled as well as the colleges’ approach to learning. Courses were targeted to kids fresh out of high school delivered by faculty who wanted to lecture in 1, 2 or 3 hour blocks. Because of the rigidity of this model it could take working adults 6 - 10 years (or longer) to complete a degree. He felt there was a better way.

He approached San Jose State administrators with a new model for college education. He was dismissed. He then approached struggling colleges and universities who were hungry for more students. This strategy was successful and he began The Institute for Professional Development. The Institute was focused on real-world problems, using students’ experiences and group work to learn. Everything was focused on what working adults needed to succeed - scheduling, support, group work, etc. - all geared toward a less rigid, more friendly approach to education. Eventually, the accrediting body in California (Western Association of Schools and Colleges) opposed Sperling’s methods and he was forced to quit.

⁷⁵ Hanford, Emily. “The Story of the University of Phoenix.” americanradioworks.publicradio.org.

⁷⁶ Ibid.

However, Sperling moved to Arizona and began the University of Phoenix with eight students in a rented union hall. Again, focused on working adults, using group work, credit for experience, and schedules that fit busy professionals. In ten years, the University of Phoenix would grow to have 6,000 students. In 1989, the University entered the distance learning market, long before many other institutions, and within a short time had 200,000 requests for information.

In 1994, the Apollo Group (the University's parent company) went public. That public offering provided the capital for the University to grow to over 100,000 students within five years.⁷⁷ Focusing on the working adult market nationwide, the University of Phoenix grew to its peak enrollment in 2010 of 475,000 degree seeking students.⁷⁸

While the University of Phoenix has had some difficulties recently, this for-profit university has demonstrated a new model of education for working adults. Despite critics of for-profit higher education; despite accusations of enrollment over quality; despite political attacks from Washington D.C.; Phoenix continues to enroll around 328,000 students who are looking to better their lives, improve their careers and earn a college degree.

After a failed attempt to recruit and serve traditional-aged students, Phoenix has returned to its roots in the last few years, abandoning the traditional college-aged market and again focusing on working adults over the age of 24. This refocusing will undoubtedly make University of Phoenix a significant competitor as more traditional institutions pursue the adult market due to a shrinking of the traditional college student population.

This relatively new model of college (for-profit) was truly disruptive to the higher education establishment and has gone from an unwanted entity to holding a place in the higher education landscape where its toughest critic, Senator Tom Harkin (D- Iowa), now states, "Their success is in the national interest."⁷⁹

Rio Salado Community College

Rio Salado Community College is a part of the Maricopa Community College District in the Greater Phoenix Area. Over the past few years, Arizona has cut state support to

⁷⁷Hanford, Emily. "The Story of the University of Phoenix." americanradioworks.publicradio.org.

⁷⁸ Fain, Paul. "University of Phoenix is down but not out." Inside Higher Education. October 26, 2012.

⁷⁹ Fain, Paul. "University of Phoenix is down but not out." Inside Higher Education. October 26, 2012..

higher education significantly - by 48% since 2008. While Maricopa is a public two-year college district, the cuts on Maricopa's District budget of \$774 million, result in a remaining state funding level of around 1%. Such state budget cuts have drastically increased tuition and reliance on local property tax increases to support the community college district.⁸⁰

Led by President Chris Bustamante, Rio Salado Community College appears to operate much more like a for-profit university than a not-for-profit public community college. Serving approximately 56,000 students (not all in credit programs), with 30,000 of them online, Rio Salado has only 23 full-time faculty members. These faculty, along with other staff and administration of the college, are housed in an industrial park near the Phoenix airport. The vast majority of courses are taught by adjuncts - nearly 1,500 of them for Rio Salado.

There are 600 courses that start on just about any Monday of the year. Focused on improving student retention and success, Rio Salado incorporates an automated program in its distance learning curriculum that can predict student success by the eighth day of class. The computer algorithm triggers a flag for students who it deems in jeopardy in order to have advisors intervene and offer assistance to these students. Faculty members may also flag a student for additional help.⁸¹

Rio Salado offers shortened semesters, a corporate college partnership program and independent study; all of this to make higher education accessible to anyone who is interested. The College has national appeal and enrolls students from 48 states through distance learning and provides credit for work experience.

Each student is required to check-in with an advisor on a regular basis to help ensure progress through the classes. Rio Salado also assigns each student a mentor who calls them upon enrolling in a class, again at mid-term and finally at final exam time. This is designed to proactively reach out to each student enrolled in a class and gauge how they feel they are doing.

Rio Salado Community College is following a much more business-like model for higher education than any other community college. However, President Bustamante believes

⁸⁰ Marcus, Jon. "Community college district tries full slate of innovations, all at once." PBS Newshour. August 28, 2014.

⁸¹ Ibid.

that this is the direction for the future. He states, “Colleges must be more nimble and adaptable if they are going to serve their students.”⁸²

Each of these institutions have developed truly innovative approaches to serving students. They have, to some extent, abandoned the traditional model of college education in order to create a new institution, new service or new approach for a new market of students. Not every institution will be able to totally reinvent itself or create a new division within the college to address the needs of a new market. However, there are things that every college and university may do to adapt to a changing environment.

Innovating Existing Colleges: Recommendations

Below are recommendations that colleges may use to modify their operations and approaches to students’ needs and to new student markets. While each institution must find its own path, the author hopes that some of the recommendations will serve to start discussions on campuses that bring about change in higher education.

Adapting a Business Model

Higher education is under more scrutiny than ever in its history. Pressure to keep costs low, to minimize tuition increases, to demonstrate a positive value proposition and to operate efficiently is mounting from elected officials and the general public. At the same time, for public institutions, state financial support has withered and is not likely to return in abundance in the predictable future. This will require colleges and universities to think and act more like a business.

What does “acting” like a business mean? Colleges and universities will have to truly understand their cost of operation. That is, what does it cost to operate each academic area or service? What benefits does each area provide to students, the community or the university? These are examples of questions that college and university leadership must ask. The answers are then reduced to numbers, sometimes uncomfortable numbers. Each department must demonstrate a value measured against its cost. This is not the way that many faculty and staff in higher education like to approach their institution. Those drawn to higher education are typically humanists who do not like getting bogged down in cost structures; they like to help people better themselves. Statements like, “If we save one person, it’s worth it,” are the common. However, given

⁸² Marcus, Jon. “Community college district tries full slate of innovations, all at once.” PBS Newshour. August 28, 2014..

the growing pressures placed on colleges, perhaps all that cost is not worth saving just one person.

Once the numbers are determined, decisions must be made. That does not mean that a department that costs more than the monetary value it generates must be eliminated. If the value (or perceived value) of the service to the university or community is great, a decision to maintain it - regardless of cost - might be the right decision for the institution. For example, nursing education programs are more expensive than many other programs due to the student-faculty ratios required in clinical sections. However, few, if any, community colleges would decide to eliminate its nursing program. These programs are too important in the community to eliminate them. The important factor is to know the costs and make an informed decision.

In business, many products have a life-cycle. That is, products must be updated or phased out because consumers are no longer interested. This is one area that has plagued colleges and universities for decades. Colleges tend to hold onto programs long after they should have been phased out. In spite of low enrollments, lack of equipment, poor quality or whatever reason, colleges and universities seem to have programs that live-on forever. When colleges do close programs there is often an uproar from faculty, students, alumni and sometimes elected officials. If such decisions are necessary, make sure the data are conclusive and that the administration has provided the department ample time to assess its operations and explore alternatives before closing it. There are times when adjustments in programs can improve efficiencies which make them, if not profitable, at least sustainable. However, sometimes one must prune a branch to assure the tree's survival.

Create a New “Line of Business”

Like Southern New Hampshire University, some colleges and universities have used a separate division or “line of business” to serve as an entrepreneurial branch of the university. Often “Colleges of Continuing Education” or some similar nomenclature serve such purpose. These areas are often fiscally independent - that is they generate enough revenue to support themselves - or in some cases are profit centers. They perform many functions including business training, community education, professional development, consulting and other services that are sometimes minimized academically and viewed as less important at the institution.

Creating such a line of business may benefit many colleges and universities as they attempt to reach new student markets that are not well served by the traditional model.

There is a great deal of work to creating such an operation and the first year(s) may not be profitable; therefore, ample time should be provided to determine its true viability.

No matter how creative an institution may become with program delivery modalities, every institution must balance academic integrity with creativity; weigh full-time faculty interests with being more nimble and having lower instructional costs (part-time faculty); and, comparing traditional cost structures with the perceived value of the educational experience provided. Being entrepreneurial in an industry steeped in tradition is difficult, but not impossible.

Key factors to consider when exploring such a model are maintaining faculty oversight of curriculum as well as course and program outcomes. Never force a faculty member who is not interested in this new venture to participate. Talk with faculty and staff about the needs of the students in the market that you are attempting to pursue, not the need for revenue for the institution. Never substitute quality for revenue. However, be mindful that quality may have more than one definition, don't get trapped into the argument of "the only way we deliver quality is by doing what we've always done".

Many of these new approaches to delivering education are likely to be very different from the way an institution is used to conducting business. Remember the SNHU model in which an inquiry by a student is responded to within 9 minutes any day of the week. Such ways of operating are foreign to universities and are not likely to become the norm. However, new expectations for staffing such a line of business will be necessary. This approach will require truly innovative thinking and a dedication to sales; a concept not well liked in traditional college offices.

Focus on Innovation

Colleges and universities are full of smart and creative people. The challenge is to harness that intelligence and creative energy into developing a culture of innovation. It is critical that leaders of colleges and universities foster such a culture of innovation on their campuses if their institutions will thrive.

Creating a culture of innovation means that leaders encourage the following:

- a) rewarding innovation, even if it fails;
- b) training faculty and staff in Design for Innovation techniques;
- c) fostering cross-departmental teams to solve problems;
- e) clearly defining problems that must be addressed;
- f) understanding your customers (students);
- g) providing time for unstructured time;
- h) not imposing too many rules;
- i) listening with an open mind;
- j) encouraging prototypes; and,
- k) using data and

observation. These techniques are both simple and complex at the same time. For some managers it means thinking differently and for others it means letting go, which can be difficult.

Rewarding innovation; even failure. One significant cultural aspect that keeps organizations from innovating is the fear of failure. If faculty and staff believe that failure will be seen negatively by the administration, or count against them during a tenure or promotion review, they will always take the cautious path. Faculty and staff tend to want to be absolutely sure that something will work before they try it. Administration needs to assure faculty and staff that innovation is valued. When it works - celebrate it. When it doesn't work - celebrate it. At least the organization tried something new.

Training faculty and staff in Design for Innovation techniques. Using a Design for Innovation or Innovation by Design approach to problem solving is a learned skill and for many, not a naturally comfortable skill. It is not a linear process and, without proper facilitation, can have teams feeling like they are floundering. It will be important to train faculty on the techniques of the process and prepare some to serve as facilitators in order to work with innovation teams. Design for Innovation is a structured - chaotic process that provides direction while maximizing the freedom of thought and exploration of potential solutions. If done correctly it is highly energizing and rewarding. However, it is a method of reaching solutions that are not easy ones but often much more effective. Give yourself time to become comfortable with it.

Fostering cross-departmental teams to solve problems. One of the key factors in a successful Design for Innovation process is to not have people on the team who all have the same background. For example, IDEO (a design company discussed earlier in this paper) develops product teams that include engineers, designers, behavioral psychologists, business management majors, artists, and others that create a very diverse perspective to any given design project. These folks bring their own perspectives to the process and force team members to think outside of their personal comfort zone. Colleges and universities do some of this already. However, emphasizing the diversity of the team and bringing in members from areas untapped before will add a new creative dynamic.

Clearly defining problems that must be addressed. One of the big challenges in solving problems is defining the *actual* problem. When thinking about the debates that often take place on college campuses over a single word in a mission statement, defining the real problem may seem like an impossible task. However, problem definition is a critical

step in Design for Innovation. The facilitator should be skilled in helping a team get to the real problem that needs to be solved. It cannot be so broad that it is insurmountable or so tightly defined that solving it really doesn't matter. For example, a statement like, "How might we get every student to graduate from our institution?" might be too broad. "How might we teach students to register on time?" might be too narrow. We might want to use a problem statement like, "How might we get students to develop their own graduation plan in time to be effective?".

Understanding your customers (students). This is probably the most important aspect of Design for Innovation. As stated earlier, Design for Innovation is a human-centric process. How will the end-user respond to the product or service? How will they really use it? What is it that they want, even if they don't know? This process does not use the *average* behavior of consumers. Rather it attempts to look at the two extremes - those that are early adopters and those who have no interest in the product. What are **their** traits?

Observation is critical. Consumers will often tell you what they think you want to hear. People will tell you they do one thing, but when you observe them you see that they function very differently. The team must take into account how people actually respond or use a product or service, not what they tell you. For example, instead of asking students how they use the registration process, teams should observe the process and how students interact with each other, with the advisor, and with the technology. What works? When do they get frustrated? Who gets through it with no problems? Who struggles?

Providing time for unstructured time. If everything at an organization is structured work, then there is no time for reflection and creativity. Some of the most creative companies have the most unstructured work environments. Google provides game rooms, flex time, nap rooms, etc. This creates an environment that allows people to be creative. There are clearly productivity requirements, but less structure than many other organizations. How can colleges and universities provide time and a place for faculty and staff to be in an unstructured environment in order to help reflect on the problem being addressed? This doesn't happen in a scheduled meeting once per week for an hour. Providing space and time that is conducive to creativity is important.

Not imposing too many rules. Rules kill creativity. The more strict the rules the less creative an organization becomes. Companies like Apple are very flexible with work rules in order to get the most out of their employees. They hire people who want to be

productive and creative and then create an environment that supports that behavior. A focus on rules and structure will get the organization forms and processes, not innovation.

Listening with an open mind. Sometimes the best ideas come from people you never thought understood the problem. It has been said that young people are the most creative - until we teach it out of them. For many young people, there are few rules of physics or social interaction. Therefore, they are unfettered by convention when discussing a problem. Having people on teams that are not engrained in how we do things will have ideas that should be explored without bias. Sometimes those ideas lead to real solutions that are innovative because they are unencumbered in what “is,” rather they are thinking about what “could be.” Keeping an open mind can lead to real breakthroughs.

Encouraging prototypes. Developing quick and easy prototypes can help a team progress through solutions that won’t work and get them to ones that will work more effectively. One motto of Design for Innovation is “fail often, fail early, and learn from failure.” Prototyping can help you fail often and fail early. They can also help determine what doesn’t work so you can learn. These prototypes can be cheap cardboard mockups or story boards of how something might work. They don’t have to actually function but they provide a visual of how a product or service might look.

Using data. Lastly, it is important to use data in innovation. This includes data about the end-user as well as trends, costs, etc. Data is key to determining if a proposed solution will work and is sustainable. Remember innovation happens when desirability, feasibility, and viability intersect. Data helps determine if that intersection is possible.

Administrative and Student Services

Administrative and Student Services are good areas to start with innovation opportunities. They are less likely to cause major push-back and are, perhaps, easier to take an Innovation by Design approach of empathizing with the end-user (students). These are areas in which teams can examine processes and observe how students use them. They can talk to students about the services that they like and what they don’t. Organizations can observe students interacting with the processes in these areas. They can quickly move to examining how other industries approach services and adapt these approaches to college campuses.

The private, for-profit sector of higher education has done a very good job of examining these services and creating student-friendly approaches that far exceed the customer service on many college and university campuses. Students are contacted quickly when inquiries are made and often a small team of employees interacts with each student in a proactive manner that makes the students feel that their needs are being met.

Customer contact and attending to details can be very important in this process. Think about Disney. Attending a Disney park is expensive, customers stand in long lines, the food is average and the parks are extremely crowded. Yet nearly everyone leaves the park thinking it was the best experience of their lives. Why? Because Disney focused on the end-user experience and what customers want to *feel*. When customers are in line for a ride, they are often told through visual markings how long it will take to get to the ride - they don't have to wonder. Additionally, there are pictures, models, exhibits, etc. that keep customers entertained while waiting in line.

In higher education there are many access points for students: admissions, registration, financial aid, advisement, etc. Innovation teams should observe these processes and think about them from the students' point of view. How could we make the process easier, more pleasant, friendlier, faster, etc.? How do our processes feel to students compared to what they expected? These are areas of "low-hanging fruit" that could change the customer experience and generate an institutional loyalty that would be very positive, particularly among returning adults.

Regulatory Reform

Leaders in higher education accept that with significant investment (over \$150 billion annually) from the federal government comes regulation and accountability. The question becomes, "How much accountability is enough?" While federal and state elected officials look to higher education to help solve the problems facing our nation and to be innovative, particularly regarding an under-educated populous and the need for economic development, the over-abundance of regulations founded in traditional practices provides colleges with an incongruent message.

If higher education accepts that there must be regulation, yet wants to improve through innovation - trying new things knowing that some may fail - how can we bring this equation in balance? First, the federal government could create a commission of federal policy leaders and leaders of higher education institutions from across the sectors to review current regulations and recommend modifications, reductions, eliminations and

potential new regulations that encourage innovation while assuring that public dollars are spent responsibly. This is a huge task but one that must be addressed.

Second, federal and state governments should request proposals from institutions to launch pilot programs in order to test new funding methods that support innovation and experimentation with initiatives to improve retention and graduation rates, knowing that some will fail. Such pilots would vary for different student markets: traditional students, returning students, students at a distance, etc. These pilots would be particularly helpful with regard to financial aid. Currently financial aid formulas are focused, almost entirely, on traditional students, taking a traditional schedule, using traditional modalities. How might we modify financial aid formulas to encourage older students to enroll in higher education and learn new “middle skills” in order to work in a new technology economy?

Third, colleges and universities must demonstrate a willingness to change. That is not to state that what higher education has been doing is bad, in fact, it has been successful for many decades. However, the industry must recognize that the U.S. has lost its standing around the world as a leader in educating its population. Higher education must stop pointing fingers to secondary education stating that students are not ready for college and therefore will not be successful. Longing for the students of yesteryear will not bring them back. While there are many successful students who come to colleges and universities, thousands are not ready and often do not really understand how to go to college. Higher education must embrace these students and prepare strategies for success.

Focus on Outcomes

For hundreds of years, higher education has focused much of its discussion and energy on inputs and processes. Clearly that tide is turning with accrediting bodies pushing outcomes in courses and programs. However, higher education leaders must change their thinking to focus on outcomes at their institutions. Questions like: “How does this process contribute to student success?”; “How are we measuring our mission completion?”; “How can we improve the completion rates in pre-college level courses which can lead to graduation?”; “How do we know that students who graduate have met our learning expectations?”; and, “How are we impacting our community?” These are the questions being asked of higher education; therefore, college and university leaders must embrace them and respond.

Conclusion

It is true that higher education is facing, perhaps, its most tumultuous period in its history in the United States. The challenges facing colleges and universities are not for the faint-of-heart and will, no doubt, significantly impact how higher education conducts its operations in the future.

But all is not lost for higher education. Some small colleges and universities will likely close or merge with others. Some will struggle to maintain their operations. Most will adapt to the new pressures and seek to thrive as they have for decades, or in some cases hundreds of years. However, none of them will make it by ignoring the writing on the wall. Colleges and universities must learn to innovate on their campuses. Leaders within higher education must develop strategies to address today's challenges and champion change within their institutions. Leaders must also advocate for change within government to truly make the United States a world leader in education again.

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