The Perfect Storm in Higher Education

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Higher education has always faced challenges, but what happens when colleges and universities are facing a 'perfect storm?' One of the victims of a pandemic, rising tuition costs, and less funding could be the traditional classroom or worse still a dramatic decrease in student enrollment. In this paper, we explore some of the elements that could make it more difficult to fulfill the American dream of attending a university for the campus life and what might lie in the future for students post COVID-19.

Keyword: higher education, online education, digital natives, COVID-19

THE PERFECT STORM IN HIGHER EDUCATION

"You could be a meteorologist all your life and never see something like this. It would be a disaster of epic proportions. It would be...the perfect storm" – Sebastian Junger, 1997

The pursuit of higher education has always been portrayed as one of the best ways to succeed in life. From a young age, most Americans raise their children to have aspirations of becoming a college graduate. In fact, the pursuit of attending an institution of higher learning have become so pervasive that attending college is a part of the 'American dream.' However, in recent years, that dream has lost its luster as the cost of college tuition has soared, economic opportunity for graduates have decreased, and other avenues to achieve well-paying jobs have become more socially accepted (Dedman, 2017). These changes have created a veritable storm of challenges as students and colleges seek to plot the best heading they are able.

From the university perspective, academics and administrators have remained engrained in a philosophy based on a brick and mortar campus with increasing value-added options for hybrid and completely online instruction. We have endeavored to find the correct combination of in-class and web-based pedagogies that creates a well-rounded student prepared to take on the storms of life (Amirault, 2012). However, the backbone of the university has remained the traditional campus and campus life the nervous system. To support this view, there have been thousands of research studies about the benefits of becoming engrained in the collegiate experience (Lei, 2016; Connoly, et al, 2017). Many of those provide evidence that extra-curricular activities help students acclimate to their universities and can lead to greater success

(Carini, Kuh, and Klein, 2006). Through living in dormitories or in proximity to their universities, students teach independence and important life skills. College athletics build discipline, foster goal directed behavior and teach teamwork. Greek life and other student organizations can make lasting connections and have experiences that lend to not only their intellectual growth, but also their mental and emotional well-being. For years, generations of young adults have attended, succeeded, and prospered from the model college life of a brick and mortar university. But history shows that any society, government, or industry can experience an accelerated decline under intensely adverse conditions.

Since the first college was founded in America over 380 years ago, for the most part, that experience has taken place within the confines of the traditional campus. However, like the extreme weather confluence pitted against the Andrea Gail off the coast of Gloucester in 1991, there is more than one storm threatening the fate of universities and colleges. Could the college experience as we know it change radically given the current situation of a global pandemic, changing student attitudes, and less funding for higher education? Are conditions brewing that could alter the course of education, dramatically steering away from the traditional on campus experience toward something else? That something else could be large swing (or nearly complete move) to virtual higher education or potentially a lot fewer students attending colleges at all.

For years, we have heard that universities could go completely digital (Lei, 2016). The possibility of it happening in our lifetime seemed somewhat remote, given the limited technological resources in the past that shaped our experiences with online learning. Before advancement in technologies led us to unpreceded levels of connectedness, we learned that online learning is successful for specific subjects and audiences, but that physical classroom environments provide a more robust learning experience for most classes. Given our teaching experiences, we have felt safe in the knowledge that our profession would remain constant. But to fall back on an analogy of how quickly the environment can change, could today's higher education system be the victim of a 'perfect storm' that could change the college experience as we know it today inexorably? In the following sections, we explore some recent dynamics that could create future havoc for the future of higher education.

A Pandemic and Social Distancing

The Coronavirus (COVID-19) has had a tremendous impact on both lives and livelihoods across the world. A virus that was first identified in Wuhan China in December 2019, quickly escalated to a pandemic status, as of this writing, leading to almost 59 million confirmed cases and 1.38 million deaths (World Health Organization, 2020). In response, businesses and governments have taken measures to protect the lives of their customers and employees by closing their doors, moving to telecommuting, promoting more online transactions, and taking other measures to limit face-to-face contact. The responses by the education sector have been varied, but all focused on one outcome, allowing students to continue the pursuit of their curriculum even at great cost (Friga, 2020). The most common response by higher education has been to close campuses and move to online instruction. According to the Chronicle of Higher Education, for the fall 2020 semester out of nearly 3,000 colleges, 10% went fully online, 34% were primarily online, and 21% adopted a hybrid model (The Chronicle of Higher Education, 2020). Only 3% of colleges were teaching fully in person.

Due to social distancing measures, classrooms can only accommodate a percentage of the students which forces classes into a hybrid format where students attend either in person or online. Faculty at institutions (both primary and secondary) are now required to engage with students both in the classrooms and watching the lecture remotely. In previous studies, burnout by college professors teaching online has not been a common problem (McMann and Holt, 2009), but in a pandemic with the pressure to migrate many courses online so quickly burnout becomes a probability (Mheidly, Fares, and Fares, 2020).

Competition From Online Universities

Just as the internet has changed the transaction of goods and services, competition in higher education has been dramatically changed by online education. Distance education has severely weakened the geographic advantage of traditional brick and mortar universities (Amirault, 2012). The most notable online education provider, University of Phoenix, founded in 1976 to cater to non-traditional students, began to offer online classes in 1989 (Hanford, 2012). The university began experiencing success on large scales throughout the mid-1990s when its' parent company went public. At the height of success, University of Phoenix had over 470,000 students enrolled in 2010 and earned revenues over \$4 billion. The university was the top recipient of student financial aid funds and students received more Pell Grants than any other university. However, investigations and lawsuits resulted in enrollments declining more than 70 percent by 2016 ("University of Phoenix," 2019).

Today, online courses are common, not only for working adults, but traditional students as well. In 2018, almost 20% of undergraduate students were enrolled in at least one online course and 14% took all of their courses online (National Center for Education Statistics, 2020). For postbaccalaureate, 30%, (3.0 million) students were completely online (this is a 41% increase from 2000). Also, according to OnlineU, there are over 37,000 fully online degrees at the associate, bachelor's, master's, doctoral and certificate levels (Optimal, 2020). One of the most radical examples of online education in higher education is the massively open online course or MOOCs (Ayala, Dick, and Treadway, 2014). Harvard-MIT combined to create non-profit free courses, created by some of their best faculty, that would eventually enroll thousands of students a semester. However, the administration of these classes has shown that universities did not realize the potential of these courses as they fall outside the mainstream of higher education.

Student Reception of Remote Learning

Research on online learning is mixed, showing differences in both satisfaction and student performance, but these results can be confounded by efficacy of the instructor or other extenuating circumstances. There is evidence which shows that students prefer face-to-face over online lectures (Jensen, 2011). On the other hand, a study by Tarimo and Hickey (2016) found that when given the option, students embrace the opportunity to take classes remotely. Anecdotal evidence from the authors show that when given the option of face-to-face classes or remote classes due to social distancing policies enacted by our university, more students choose to view the class online than to attend class. This could be due to health concerns or it may be a change in student preferences.

An important consideration may be how students perceive the use of technology in the classroom. Students today are considered digital natives while faculty are at best digital immigrants. This is the generation that has grown up in a digital world and the technology surrounding the internet. In the United States, digital natives are part of the Millennial generation, and Generation X & Y. Digital natives speak the language of computers, the internet, video games, and social media. As the new 'traditional' student, they think differently and process information differently than instructors (who are seen as digital immigrants). This idea of "digital fluency" allows the next generation of employees to manipulate information, solve problems, construct ideas and use technology to achieve goals (Briggs and Makice, 2012). Digital Natives may also experience challenges due to so much reliance on technology. How we relate on a personal level has been forever changed by technology. Many of the daily activities that once required us to venture out and interact with others are being replaced with online alternatives. Playing games, going to the store, waiting in lines, spending all night in a reference section of a library – those activities, sometimes thankfully, are easily performed alone, without the need to be authentic and social. Operating too much in a virtual environment impacts identity development and self-awareness (Colbert, Yee, and George, 2016).

There is also a "Google" mentality affecting digital natives and even digital immigrants. The answer to any question can be found at your fingertips - leading to a phenomenon of digital dependence. Students may not value sitting through a lecture when the course content can easily be accessed through the internet when needed later. It is also possible that digital dependence may lead to digital Amnesia – the experience of forgetting information you trust a digital device to store and remember for you Kaspersky Lab (2016).

Cost of Higher Education

The cost of higher education has increased significantly over the last 40 years. Between 1981 and 1986, costs rose 57 percent, while the average cost of all services rose by only 31 percent. Then, from the late 1980s to 2018, the cost of an undergraduate degree rose by 213% at public universities (Hoffower, 2019). There are multiple explanations for the increasing costs of higher education. The 'Bennett Hypothesis,' contends that increased financial aid and subsidies helped shoulder the increase in tuition (Weissmann, 2012). The hypothesis does appear to explain the dramatic percentage increases in tuition. In 1978, Congress passed legislation to make all undergraduates eligible for subsidized loans and/or Pell Grants (Hoffower, 2019).

Another theory for rising tuition costs is the shift of states' allocation for university funding. At a time where there appears to be more federal support for higher education, state support of higher education has been steadily waning since the 80's (Tandberg, 2009). With the pressure on states to fund so many programs, such as health care, special interest groups (Tandberg, 2009) and rising costs of infrastructure, public institutions receive fewer dollars in proportion to state budgets' and at the same time are expected to justify through means testing of the dollars they receive. This has caused universities to seek funds elsewhere, including increasing student fees and being more dependent on increasing student enrollment (which lends itself to online degree programs by giving universities the ability to compete outside their geography).

In addition to financial aid and states' roles in explaining tuition increases, other theories attribute increased student services, expanded administrative positions, and other non-instructional costs have led to skyrocketing tuition. Howard Bowen's review theory of cost, purports that the source of cost increases can be attributed to rising revenue made available by increasing student enrollment. Universities spend everything they make as a result of increasing funding, so revenue is the only constraint on cost. The other view is from Baumaol and Bowen who group higher education with other personal service industries which experience "cost disease" (Archibald and Feldman, 2016).

As for the effect of COVID-19 on university budgets, there are several dynamics at play that will eventually lead to program changes and/or future tuition increases (Friga, 2020). Universities have spent millions in the summer and fall semesters of 2020 on measures to keep students and employees safe including cleaning materials and staff to disinfect buildings, upgrading ventilation systems, installing physical barriers where it is difficult for social distancing and providing masks. Universities had to create leave policies and procedures as faculty and staff report a positive COVID-19 test or if they were exposed to someone with COVID-19. In response to state mandated quarantines, some schools closed dormitories and international students were encouraged to temporarily move back to their home country. Unexpected technology costs were added as many courses were moved to an online format. Schools with lucrative athletic programs saw dramatic cuts in revenue as sporting events were canceled and schedules pushed back months (or suspended indefinitely). These changes created calls to by parents and students to cut tuition, reduce fees, and reimburse dormitories and meal plans (Hubler, 2020). In fact, some students transferred to less expensive universities until the pandemic is over because the cost of tuition outweighs the benefit (Mangan, 2020). Other students have simply decided to temporarily drop out of college until our society gets back to normalcy.

The Politicization of Higher Education

Support for higher education at the federal level has always been somewhat of a political football. In the 2020 federal budget, President Trump proposed at \$7 billion cut for the Department of Education. This move was an effort to streamline the student-loan system and bring down costs for students (Nguyen, 2019). Access to a college degree is seen as a path to upward mobility, however for many decades this route was available to only a select few. After the Civil Rights movement, universities sought to remove the barriers that prevented minorities from educational opportunities (US Department of Education, 2020). Legislation and a social push to create more access led to tremendous growth in student enrollment in the 70's. Eventually, this growth would flatten out, but universities had decades to adjust by building more classrooms, dorms and other supporting facilities. In addition, federal tax dollars earmarked for student loans and grants increased significantly. In more recent times, multiple high-profile candidates have gone so far as suggesting that a college education be a "right" open to everyone. In 2015, President Obama announced a program that would make community colleges tuition free (Palmadessa, 2017). America's

College Promise (ACP), was an attempt to put the US back on tract in the global economy by meeting the growing demand for needed skills. This program faltered after Obama left office, but the discussion of free community college tuition was revived in the form of a bill introduced in 2019. In the presidential race of 2020, the majority of the democratic candidates supported a system where four-year colleges were either free or advocated students should graduate without debt (WP Company, 2020).

The Result of the Perfect Storm?

The factors mentioned above pose significant potential problems for higher education. Specifically, we see two important outcomes that may develop in a post COVID environment. First, colleges and universities may not be able to draw students back to the classroom and instead see a massive switch to completely online learning. Second, higher education may lose students not only in the traditional classroom, but all together due to low student engagement. Looking to the success and pitfalls of similar programs like telecommuting, companies have gone through phases where employees were able to work from home but later were recalled back to the office. In 2017, IBM gave thousands of employees notice to either move back to company offices or face termination (Streitfeld, 2020). Similar cases in the last ten years of companies redacting work at home policies include Yahoo, Bank of America, and Aetna. All were done against the wishes of employees, but were pushed by companies to turnaround problems of performance and accountability. Companies found that with remote work, home based employees often felt marginalized while creativity and innovation at the organization level suffered. However, tech giants like Facebook, Zillow, and Twitter are developing plans to let employees work remotely forever.

While online universities offer access and flexibility to a diversity of learners, they are not without limitations (Amirault, 2012). One limitation is the lack of accreditation for some academic disciplines. Accreditation exists to ensure that students are receiving the education experiences that allow them to be successful in their careers. For example, the premier body for accrediting business schools in the US is the American Association of Colleges and Schools of Business (AACSB). Generally, university degree programs that are accredited require students to prove credentials of previous institutions to get courses transferred. Also, faculty searches will generally require that their prospective faculty members have earned their terminal degree from an accredited university.

Another important limitation is the level of success of students attending online universities versus their peers at traditional institutions. In 2013, the University of Phoenix was identified as a "red flag" institution by USA Today because the student loan default rate (26%) surpassed it graduation rate (17%) (University of Phoenix, 2019). The Senate's Health, Education, Labor and Pensions Committee investigated the forprofit higher education industry from 2010-2012. The committee found that compared to traditional schools that spend between \$3,344 and \$11,128 per student on instruction, for-profit colleges only spent \$2,050 per student and the University of Phoenix spent \$892 per student (Hankin, 2012). The committee also found that Executive pay was almost seven times higher in the for-profit institutions, Federal loans and grants went to significantly higher percentages of for-profit students and dropout rates were among the highest. Over the past 10 years, scrutiny of online universities has led to online school closures, lawsuits, withdrawals of Federal funding and cancellation of student loan debt because of deceptive practices.

CONCLUSION

With the dramatic changes we see today with regards to the pandemic and the public's attitude toward higher education, we wondered if we could be witnessing the beginning of the end. Gone could be the days of college campus filled with students bustling from class to class, collegial meetings in the hallway, and faculty orating in the classroom. Face to face instruction, which has been steadily replaced each year by increasing enrollment in virtual education, could be replaced en masse in a short order. The college experience could be a remote and distanced one where students rarely, if ever, grace the halls of academia in person. In the face of a pandemic and social distancing, these behaviors seem less important than the ability of the university to continue their mission of education – leaving little choice to opt for remote learning.

The long-term costs associated with COVID-19 are still largely unknown and it would be prudent for organizations to plan for its impact into 2021 and beyond. Epidemiologists warn that COVID-19 is "here to stay" (Scudellari, 2020) and that institutions need to make both short-and long-term plans as waves of the coronaviruses, like the flu, could arrive every winter. However, what long-term effects could this confluence of events have on a higher education system that many complain is already too expensive and on the verge of obsolescence? What starts with a switch to remote learning as an adaptive response, could with the existence of other conditions such as social distancing lead to a wave of students abandoning colleges and universities campuses for computer screens. There is a wealth of research that purports how online classes can be as engaging as traditional classes - but these reports are based on new methodologies and tools used by only a subset of the most tech savvy instructors. The average college professor is not a digital native and is an expert in their field, not video editing, file conversion, and learning management systems. It is our experiences that while the best online classes do meet (and potentially exceed) the level of engagement and interaction as in class instruction, the majority of online classes fall significantly short of the mark. Professors will also have to deal with problems of student performance, accountability, and overall student success as courses become more virtual. Most importantly, without a personal connection in higher education, disengagement and then lower enrollments could follow.

Since the strengths of being physically engaged still outweigh the convenience of online learning, we believe that traditional universities will be able to overcome the obstacles that have resulted from COVID 19 as successful treatments for the pandemic are found. However, many universities will need to reassess their costs, sources of revenue, and organizational structures to remain viable in the future because the pandemic has brought these issues to the forefront for consumers of higher education.

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