

Moving from Disruption to Opportunity: A Paradigm Shift

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Abstract

Across the globe, colleges and universities are facing a series of crises that disturb and interrupt what many perceive as the normal operation of the institution. The reflexive tendency is to try and survive these challenges and pivot back to normal operation. It is increasingly clear that this approach is a way of the past. This article discusses the disruptions facing higher education institutions and offers a new paradigm for the way forward.

Keywords: disruption, interdisciplinarity, e-learning, antifragility, higher education,

1. Introduction

Higher education is at a time when disruptive challenges occur regularly, causing disequilibrium across the industry. Conversations surrounding disruption are not new to academia; however, a consistent understanding of disruption is elusive in literature. When discussing the term organisational disruption, a 2009 report from the Resilient Organisations Research Programme in New Zealand notes that "disruptive challenges can arise from natural disasters (geophysical and meteorological events, for example), acts of malevolence, sudden changes in the operating environment (e.g., the currently global financial crisis) or by internal failure of the organisation's assets or systems themselves" [1]. Christensen and Eyring (2011) define disruptive innovation as "a process that allows a simple affordable, and accessible product to replace a product that is complex, expensive, and inaccessible, even if the initial quality of the new product is inferior [2]. These definitions, written well before the COVID-19 global pandemic, describe the disruptions that are now impacting higher education. No doubt, there are many other definitions in literature.

This paper does not seek to offer a standard definition of disruption. Using a general view of the term, six disruptive forces impacting higher education across the world are outlined. These include expanding e-delivery, issues with credibility and trust, seeing students as consumers, changing student career expectations, financial pressures, and increased competition. To address these issues, organisations must transcend the typical survival mentality and instead shift their mindset towards thriving in adversity. To achieve this new way of

thinking, higher education institutions must adapt their organisational strategies in three significant ways, which are 1) embrace a mindset of anti-fragility, 2) foster interdisciplinary approaches to teaching and governance, and 3) embrace the potential of e-learning.

2. Background

Higher education is undergoing a period of disruptive change. A 2014 article from the United Kingdom notes that disruption is creating a different future for higher education institutions, students, and faculty [3]. University leaders are tasked with navigating the implementation of strategic alternatives, whose impacts are uncertain. Good scenario-based planning and advanced analytics will not insulate an organisation from uncertainty. Leadership must ask a different set of questions. Is my organisation flexible enough to adapt to a rapidly changing environment? Does the organisation have leadership capable of navigating through uncertainty?

Universities serve a wide variety of internal and external constituents. Leaders must consider how a disruption will impact their stakeholders and who is most at risk. For example, students, often the most vulnerable during disruptions, face drastic changes that can influence their access to education and overall educational experience. Administrators, who are usually the forgotten casualties of disruption, face issues such as burnout and depression. For faculty, a career path that was once considered safe and stable is now unpredictable, marked by routine leadership and organisational structure changes and a constantly expanding job description.

It is important to remember that disruption is not isolated to a specific region. The phenomenon discussed in this article impacts institutions worldwide. As a result, the authors draw on literature from international sources to underscore the global nature of the altered state of higher education.

2.1 Expansion of Digital Education Delivery

The expansion and innovations associated with digital education are significant disruptors within higher education. For many universities, the expansion of online learning that resulted from

COVID-19 has moved from a temporary solution to a consistent effort to implement new education solutions for students. For many faculties, the transition to online teaching was trial and error, and there are positive and negative consequences. On the positive side, utilizing e-learning technology has allowed universities to reach a more diverse and geographically dispersed population of students. However, this technology also changes the interaction between students and faculty [4].

E-learning technology has created opportunities for innovative teaching practices in the classroom. However, there are unintended consequences, such as the drive to expand these approaches to realize cost savings. Further, in many universities, there are fewer in-person opportunities to exchange ideas, making learning interactions feel transactional rather than transformational. Digital education is shifting the landscape of higher education and changing how faculty complete their work. We must question whether our faculty systems are ready for these changes and spend more time addressing training and development needs that can alleviate these concerns.

The COVID-19 disruptions required a rapid acceleration into the digital education space. For many, there was a realization that the expansion of online learning could occur much faster than initially believed. An evolution that would typically have occurred through stakeholder conversation and with the involvement of a faculty governance system was mandated out of necessity. While the decisions made by higher education leaders were crucial, the reality is that essential conversations were bypassed. The question for leadership is how to take advantage of the digital education efficiencies and innovations that evolved because of disruption and simultaneously maintain the engagement and confidence of the faculty.

2.2 Credibility and Trust

During COVID-19, online classrooms became a more public forum, with nonstudents observing what curriculum was taught and what was not. This occurred as many institutions sent students home, and classwork was completed from their parents' kitchen tables. Parents began questioning the cost of education compared to their children's experiences during this disruption. The evolving environment within higher education is causing students (and potentially their families and employers) to question if universities are credibly delivering what they promise. Students wonder if their studies will pay off with jobs that lead to higher income and a more comfortable lifestyle. Rising fees, out-of-province tuition rates, and subsidies are problems that should make the literal hair on the back of the neck of every administrator stand up. This is just one of many

areas where higher education faces a credibility and trust crisis that we are only starting to understand.

Consider how many universities struggle to handle crisis issues such as campus protests and hunger strikes regarding Israel and Palestine. The polarized nature of our political environments creates difficult water that even the most experienced administrators have difficulty navigating. While many are concerned about the political winds afoot, it is essential to remember that higher education has routinely been at the center of major political issues. Institutions are expected to guide the education of students, teaching them how to think more than what to think.

It is presumed, as a matter of trust, that institutions of higher education will provide a physically, emotionally, and digitally safe learning environment for students. Campus protests potentially disrupt classroom access as faculty, students, and staff question their safety. Members of marginalized groups may be physically and emotionally endangered. Online platforms can be attacked, potentially damaging educational information and personal data. In its different forms, safety is a reasonable request of universities, and when these issues are not addressed, credibility and trust deteriorate.

2.3 Students as Consumers

It is common for schools to compete for students. Most institutions of higher learning find themselves in a market where they must aggressively recruit by offering amenities to get them to enroll. In every country, elite schools can choose from among the best applicants. However, most universities do not find themselves in this position. With declining birth rates in many countries, the smaller pool of traditional-aged students puts these individuals in a position to be recruited for college.

Traditional students have turned into influential consumers of education [5]. Higher education institutions depend on the students for revenue and now, more than ever, see them as consumers [6]. Support systems such as advising, tutoring, and financial aid are traditional services with increasing costs. However, these services are essential because of the heavy educational investment of students and their families [7].

Post-traditional students, especially given the opportunities provided through remote learning, are also in a position of power as they compare what different schools offer. Gone are the days when students only considered local schools and institutions only competed with peers in their immediate geography. Schools compete for students by providing additional services and differentiating their education brand.

To attract adult learners, universities began trying to influence retention and student success outcomes by providing childcare and transportation programs, thus increasing their service levels. While these services ease students' non-academic pressures, many consider them non-essential boutique programs. Administrators must carefully understand their impact on already-constrained budgets [8].

As students move toward consumers and institutions focus on the bottom line, universities are focusing on developing efficient organisational processes [9]. Relationships among institutions, faculty, students, and staff are being recalibrated, with each party taking on shifting responsibilities. Fewer faculty members are tenured or tenure-track, and more work as part-time contractors with little or no job security. Permanent faculty are increasingly responsible for governance and often support their part-time colleagues' training and development needs. At the same time, student evaluations can influence faculty hiring, retention, and promotion. Students spend their time and money to purchase an education they hope will pay off economically and provide a satisfying career. They deserve the time and attention of faculty beyond transactional engagement. Transformational engagement is critical to the overall success of students in the higher education environment.

2.4 Changing Career Expectations

Higher education institutions are expected to meet the career needs of diverse student populations. Traditional undergraduates expect to mature and leave college prepared for the career of their choice. Post-traditional students turn to the institution to build on their life experiences, advance within their current career, or transition to a new opportunity. This is while they maintain their current job and family responsibilities. These are significant expectations to meet, especially when considering the rapid changes in the job market and financial constraints discussed in detail in the next section.

Many changes impacting students' careers are emerging from the fourth industrial revolution. Because of its emphasis on technology, job profiles will evolve to reflect a need for new skills and competencies [10]. According to the World Economic Forum's (2020) Future of Jobs Report, approximately 50% of all employees will need reskilling by 2025. Skills emphasized explicitly in this report include critical thinking, complex problem-solving, and self-management, e.g., active learning, resilience, stress tolerance, and flexibility [11]. Now, universities are expected to teach students how to think and prepare them with specific skills related to distinct career paths. This skills-based focus, driven by technology, significantly disrupts higher education.

Students seeking employment will need additional skills such as creativity, originality and initiative, critical thinking, persuasion and negotiation, attention to detail, resilience, flexibility, and complex problem-solving [12]. Further, there are a variety of interdisciplinary concepts, such as global awareness, financial, economic, business, entrepreneurial, civic, health, and environmental literacy [10]. Students are likely ready to embrace the complexities of a dynamic work environment; however, the question is whether higher education is evolving to keep up with demand.

2.5 Financial Pressures

Financial pressures are impacting both institutions of higher learning and their students. As demand for government spending grows for various services, government financial support for higher education is declining [6]. With government funding declining and tuition and fees increasing, students (and potentially their parents or employers) bear more tuition costs. As countries reduce their financial support for higher education, institutions are working to fill the economic gap [13] and are turning to corporate operational models for ideas [14]. Students face increased tuition and fees, limited scholarships, and tuition reimbursement opportunities, which results in higher student debt.

The task of university administrators is to find ways to balance the budget, and as a result, many are attempting to save costs by changing their faculty hiring models. Traditionally, faculty were Ph.D. qualified, worked towards tenure, and participated in teaching, scholarship, and service, including shared governance with university administration. With this model, faculty enjoyed academic freedom and the ability to develop their course curriculum [15]. Shifts in the faculty composition from permanent, tenure-track faculty to more contingent faculty are occurring broadly in the United States, Canada, and Europe [16].

Adjunct faculty (instead of tenured and tenure track faculty) are typically paid less, have no long-term contract, and, depending on the country, have no health insurance benefits. Moving from a permanent faculty to a contingent faculty reduces labor costs; however, it creates other issues that must be addressed, such as a larger faculty body to train, adjustments in governance structures, and new organisational structures that have changed the role of full-time faculty. Thus, a faculty primarily focused on student success and research must now serve as people managers for adjunct faculty teaching in their departments.

2.6 Increased Competition

Traditional universities compete with for-profit

universities and career and technical colleges. These institutions and schools use newer technologies to deliver their content [17]. Students in higher education vary significantly in terms of age, workforce status, and what they need from their institution. For-profit institutions and career and technical colleges often attract working adults who attend classes as their schedules permit. Further, their curricula focus on job skills, which certainly benefit students.

In today's environment, higher education organisations must react quickly to competition. Many depend highly on tuition revenue and lack a significant endowment to survive disruptive economic shifts. Smaller private nonprofit universities and some more prominent public universities are struggling with enrollment and budget issues, laying off administrators, faculty, and staff, and cutting academic programs to match the leaner administrative profile of for-profit institutions.

A 2016 article published in the Canadian Journal of Higher Education notes that universities recruit international students who pay significantly more fees to fill the financial gap. Often, these students face affordable housing shortages, which increases their costs. Further, their student status limits work opportunities [18]. While seeking to address financial disparities, universities must also consider the social justice implications of their financial decisions.

3. Call for a paradigm shift

Higher education institutions are complex organisations with multiple stakeholders, layered governance structures, and internal compartmentalization in the form of discipline-specific colleges and schools. As universities attempt to deal with disruptions, leaders must first understand the silos within their institutions. The next step is to work diligently to shift toward a new way of thinking that can help address disruption's impacts.

A balanced view of organisational literature suggests that siloes have some benefits, such as creating groups of experts, establishing accountability as one would within a discipline such as the legal field, and creating a sense of identity [19]. The negative aspects of silos are more pronounced and have dire consequences. These include internally focused behaviors that fail to consider the relevance of external relationships. Typical behaviors include a collapse in communication, an inability to coordinate and cooperate with other stakeholders, and a strong preference for developmental priorities over organisational needs [1]. Addressing the disruptions in higher education will require leaders to embrace three essential paradigms. Paradigm one involves

shifting how we discuss disruption and its organisational impact. Paradigm two focuses on integrating interdisciplinarity into the academy. Paradigm three consists of changing our view of the role of e-learning.

3.1 The move toward antifragility

Various scholars have described the disruptions in higher education using the acronym VUCA. Initially adopted by the United States military, this term stands for volatility, uncertainty, complexity, and ambiguity and has been the subject of various articles in higher education [20] [21]. A similar term that scholars outside the U.S. use has emerged from the information technology sector is BANI, which stands for brittle, anxious, nonlinear, and incomprehensible [22].

Hillson [23] notes that the current lexicon in higher education uses these terms and metaphors to emphasize the need for resilience and robustness with the underlying idea that an organisation can be built to withstand change. The idea is that the organisation will return to its previous condition once the disruption ends. However, there is an alternative way to view the challenges ahead. The concept of antifragility uses a positive approach with leaders promoting the idea that the organisation will benefit from the disruption. Institutions can evolve to flex instantly, much like bridges that sway during high winds.

Understanding antifragility is an essential aspect of future-proofing the higher education environment. To be clear, future-proofing is not exclusively a predictive exercise driven by data and market analysis. Further, you cannot predict the subsequent disruption to the educational environment. Instead, we need adaptive leaders who will focus on preparing their organisation, colleagues, and students to evolve rapidly whenever and however the need arises.

To lead this way, higher education administrators must promote the idea that the organisation and its people constantly evolve. To be clear, the headwinds for them will be strong. The naysayers will talk about change fatigue, while others seek to blame the decisions made by previous leaders. Still, others will offer no solutions and lament the old days while refusing to change. The mindset of antifragility will require vigilance on the part of higher education and honesty regarding what will be required from those of all levels of the organisation so that it can survive and thrive.

3.2 Foster Interdisciplinarity

Students are at the center of the disruptions impacting the higher education industry because of the increased need for support and the dynamic

nature of job markets. They must be ready to evolve in a world where new skills are required to solve emerging problems. Higher education must be prepared to develop and create an environment that supports future jobs through a forward view of education.

The disciplinary focus that dominated previous higher education structures must be replaced with an interdisciplinary atmosphere promoting positive relationships, learning, and sharing among constituents dedicated to coexisting. Students, faculty, and administrators are all accountable to each other for their part of the formula. Families, communities, and employers can trust everyone's intentions more easily. While focusing on the student experience, adaptable curricula suited for different learning styles and educational outcomes focused on skills must be embraced.

Institutional adjustments do not require seismic changes. Paradigm shifts can occur through adjustments by pushing institutions to shift priorities, rebalance resources, and reward cooperation. We call for expanding efforts to break down silos so that individuals and groups from different disciplines and traditions can begin to work together more systemically. This can increase communication and build a foundation of increased trust.

We believe our attention should focus on an interdisciplinary approach to solving our societies' pressing problems. In a 2016 article, Currie, Davies, and Ferlie [24] discuss the value of interdisciplinary engagement between business schools and other academic departments. It is time to expand on their discussion and revisit the need for interdisciplinary cooperation and communication. Intentional, inclusive, interdisciplinary education can move higher education out of its current situation towards a bright future. We offer three suggestions for this paradigm shift.

3.2.1. Externships for faculty. An essential area with limited literature is exploring the value of externships. Creating opportunities for faculty to gain real-world experience will produce graduates with a stronger connection to industry. In addition, faculty can conduct more robust research. Faculty members can also engage the industry with potential research ideas and explore the practicality of existing research. Finally, exposure to new environments often serves as an opportunity to recruit new students as faculty become ambassadors for the university in the community [25].

Faculty externships create an opportunity to break barriers on multiple levels. First, there is the relationship between the academy and the private sector, which is often filled with myths and false information. Academics are perceived as only understanding theory, while private sector leaders are often thought of as lacking data expertise, thus

preventing them from solving complex problems. Bridging this gap creates an opportunity for collaboration and understanding that will have long-term benefits for both sectors.

3.2.2. Focus on the student experience. University students are not a homogenous group. Each category of student and each specific student has unique needs and expectations. We recommend that faculty and staff increase collaboration across the university to provide a web of support for student learning. Faculty can work directly with athletic coaches to ensure continuous coordination. Disability services can work with professors to accommodate students with physical and learning disabilities. Support staff can work with the registrar to ensure students are enrolled in the correct classes. The key to this is that groups work together on behalf of the student.

Enhancing internships will provide real work experiences that can be applied in a classroom setting are valuable. Further, students also seek a competitive advantage by securing co-ops and internships. Success requires all aspects of the nexus to work together. Ideally, the employer and higher education institutions collaborate on the standards needed for student success. Employers should have adequate supervision in place and be transparent regarding internship expectations. Institutions must ensure that students are academically prepared for available opportunities [26].

3.2.3. Repackage traditional disciplines. By shifting toward an interdisciplinary approach and repackaging traditional disciplines, the nexus between higher education, industry, and students begins to fill with opportunity. For example, while many decry the evolving nature of faculty life, the constant that persists is that the faculty-student relationship is essential for learning. The desire to learn from subject matter experts with deep knowledge of discipline still exists. However, the bar has been raised by industry and students alike.

In a 2019 article, Lindvig, Lyall, and Meagher [27] distinguish between interdisciplinary programs in monodisciplinary universities versus those established as interdisciplinary. One important conclusion from this European-based research group is that limitations naturally occur when interdisciplinary expansion is only in a single program. Venturing into interdisciplinary spaces allows for the collaborative creation of new ideas and should occur broadly across the organisation in academic and non-academic departments.

As an analog, twenty years ago, no one would have imagined a self-driving car that uses cameras and Wi-Fi to navigate a city. Then comes Elon Musk, who came up with the idea of intersecting automotive technology, robotics, and computer systems. Said differently, creativity is often at the

margins. Perhaps the goal is not to push interdisciplinarity into exclusively discipline-specific curricula. The future of higher education will require entrepreneurial and innovative thinking at the fringes of programs that are then grown with intentionality.

3.3. Evolved view of e-learning

Technology, including the Internet, allows institutions to deliver higher education at a lower cost [28]. Typically, disruptive innovation occurs at the lower end of the market, with underserved customers [29]. Using e-delivery of higher education is an example of utilizing technology to serve previously less-served customers. In higher education, less-served customers include adults whose job schedule prohibits them from taking classes during the day. Increasingly, faculty and staff utilizing e-learning can engage in education from different locations and time zones. The resulting model provides flexibility for faculty and students at a lower cost. Online teaching, mandated during the pandemic, has sped up the impact of technology on education. Even faculty that had never taught online use technology in ways previously thought undesirable.

Developing adaptable curricula is another opportunity for collaborative coordination. From experience, we know students often have varied interests that cross disciplines. Nevertheless, given their priorities, they are usually forced to 'pick a major' based on what is available. Post-traditional students struggle to translate their life experiences into for-credit classes. Traditional students often want to combine their diverse interests into one degree that speaks to their passion. In both student scenarios, faculty from different disciplines can collaborate by creating modules, allowing team teaching so students can actively select how the modules fit together. For example, an arts and humanities student who wants to start their own business can take modules on developing a strategic plan or understanding small-business finance. The modules encourage cross-discipline and communication between faculty.

As e-learning evolves, higher education will face challenges previously reserved for the private sector. For over 30 years, many industries have had to deal with the potential of computer viruses or the infiltration of a system with the intent to steal data. More recently, as experienced by the authors of this article, universities have been able to hijack their systems and hold their data hostage for a handsome sum of money.

The alternative for schools with a significant classroom-based population is to shift backward toward paper-based systems until the issue is addressed. With the right leaders in place, these authors have observed faculty and administrators

who spring into action to meet students' needs. Universities that rely more on I.T. systems must invest in hiring data security teams. You only need to look at the increase in educational technology companies (ED TECH) to understand how quickly the e-learning landscape changes.

4. Conclusion

The pressures on higher education outlined above can be viewed as a mandate for change: students, families, and employers question higher education's value (and values). Institutions are expected to deliver graduates capable of problem-solving and reflective discernment. The demands on higher education have escalated with the costs. We suggest that higher education can tackle the new mandate brought on by disruptive changes. Perspective and history indicate that higher education will regain traction with proper leadership. Further, its mission of educating students will move back to the forefront of the conversation.

The disruptions identified in this paper are not an exhausting list of issues facing higher education. Higher education leaders must be prepared for the unknown disruption. However, by highlighting the issues and proposing a new paradigm, this paper contributes to the discussion surrounding the need for adaptation in our thinking within the academy. In essence, we want to reframe the conversation about disruption.

We must begin to see the internal structures of academia and the external changes to political and economic environments as inextricably linked. Implementing concepts such as antifragility, interdisciplinary concepts, and creativity in e-learning can begin to address the adaptive problems that require agile thinkers and flexible solutions. In addition, it will require adaptive leaders with the flexibility to lead across well-established boundaries in higher education.

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