



## The Future of University: Technology and Critical Issues of Importance to Higher Education Leaders

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**Abstract:** The growing relevance of college education is demonstrated by the increasing demand for college degrees across the globe and the increasing preference of employers for the college educated. The future of university or higher education will be influenced by technology, which proved to be the *sine qua non* institutional response to COVID-19 pandemic that forced communities to shelter in place. Has the Pandemic changed higher education attitudes to technology adoption forever? While it may be too early to conclude, there is little doubt that the future of higher education will be influenced significantly by technology. Beyond technology, a number of critical issues is discussed. The degree to which institutions survive and thrive in the near future will depend on the extent to which their leadership attend to these critical challenges.

**Keywords:** college education; higher education; COVID-19 pandemic

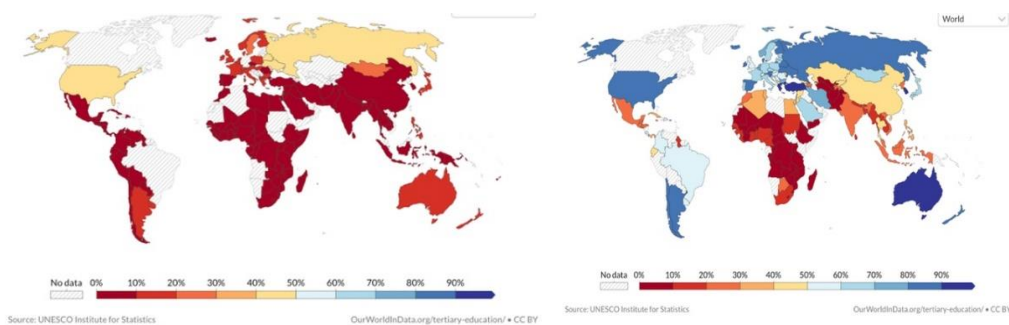
### Introduction

Established as a critic of civilization, producer of sophisticated labor force, custodian of stock of knowledge, and searcher of truth, the university, from its inception, has always pondered its own future and roles in a dynamic society. There is no doubt that, as an industry, the university continues to evolve from one generation to the next. Some writers have predicted a diminishing relevance of university in modern society due to the growing information dispersal and ubiquities. However, university's ability to adapt to changes in environment continues to make it an indispensable force in society. Economic advancement continues to put higher premium on the college educated labor force. Therefore,

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more students are enrolled in universities across the globe today than ever before. Figure 1 shows the proportion of students enrolled in tertiary education in 1970 as compared with 2016.



**Gross Enrollment Ratio in 1970**

**Gross Enrollment Ratio in 2016**

**Figure 1.**

Source: <https://ourworldindata.org/tertiary-education>

With exception of Africa, considerable increase in the proportion of populations enrolled in tertiary education is demonstrated on the graphs above.

Technological advancement continues to alter production and consumption processes, especially in advanced society. The disruption of production processes has led to the demise of several industries. The music industry, the postal services, retail businesses, etc. are examples of sectors that have had to radically alter their processes to survive. Some have been predicting that the educational sector was next in line.

As of the time of writing, ChatGPT is touted as the force that will disrupt education. According to ZD Net Innovation, “*ChatGPT is a natural language processing tool driven by AI technology that allows you to have human-like conversations and much more with a chatbot. The language model can answer questions, assist you with tasks such as composing emails, essays, and code. Usage is currently open to public free of charge because ChatGPT is in its research and feedback-collection phase<sup>1</sup>.*” Using AI technology, ChatGPT attempts to generate answers to questions, even academic questions in a way that almost makes it

<sup>1</sup> <https://www.zdnet.com/article/what-is-chatgpt-and-why-does-it-matter-heres-what-you-need-to-know/>.

unnecessary for learners to make the effort to acquire educational content. Reactions against ChatGPT is growing among educators.

Largely due to the need to accommodate growing demands and or to stay abreast of competition and partly due to innovations in technology industry, modern universities have always sought technology to improve their processes. Library processes, research operations, student information management are just a few of university operations that have undergone radical changes in their operations within the last three to five decades.

Consequently, attitudes of university leaders to technology have changed over the years. There is hardly any university leader, even in the developing countries, that would want to be described as anti-technology today. More than ever before, institutions lament lack of funds to acquire the level of technology desired. Differences in the level of technology adopted by institutions reflect, therefore, differences in funds availability and differences in missions.

In spite of the challenges of funds, institutions worldwide were thrust almost overnight into technology adoption frenzy by the COVID-19 pandemic. The pandemic forced society to shelter in place and the only way institutions could engage with their constituents was virtually. The degree to which institutions were able to operate effectively virtually varied depending on their distance education technology state of the art and type of mission and operations undertaken.

The purpose of this article is to reflect upon the impact of the pandemic and speculate about the future of university operations in a world that is not insulated against pandemics. Health professionals predict more pandemics for the future, perhaps more severe ones than the COVID-19 pandemic: “...*the data also show the risk of intense outbreaks is growing rapidly. Based on the increasing rate at which novel pathogens such as SARS-CoV-2 have broken loose in human populations in the past 50 years, the study estimates that the probability of novel disease outbreaks will likely grow three-fold in the next few decades*<sup>1</sup>.” The success and failure of technology adoption during the pandemic provides important lessons for the future.

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<sup>1</sup> <https://www.news-medical.net/news/20210824/Extreme-novel-pandemics-more-likely-to-occur-in-the-future-statistical-study-reveals.aspx>.

### Types of Institutions

Institutions can be categorized in several different ways. In the US, a typical category is public versus private institutions. Public institutions are established by state government primarily to serve the general public of the state that established it. Private institutions are established by non-government agencies. Private institutions can further be categorized into private not (or non) for profit and private for profit. The most common institutions in the US are private nonprofit, which basically means that the interest of these institutions is not to generate profit for investors. On the other hand, private for profit is established with the intent to realize profit for the shareholders. Figure 2 illustrates different categories of the US institutions.

The US institutions can further be categorized into parochial or sectarian and secular or non-sectarian. Sectarian institutions are private established by sect or church organizations to fulfill specific sectarian mission, while secular institutions are not affiliated with a sect or church. Over the years, the evolution of these institutions has followed similar pattern toward greater liberalization and secularization.

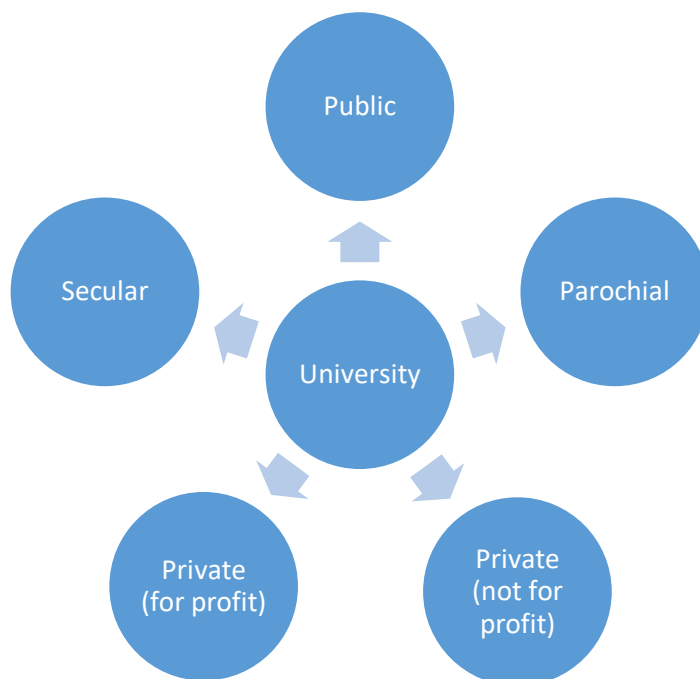


Figure 2. Types of US Universities

It should be emphasized that while all sectarian or parochial institutions in the US are private, not all private institutions are sectarian. Issues of concern vary to some extent depending on institutional categories. In addition, the size of the institution, its relative standing in a competitive environment, and the extent to which funding sources are diversified impact leadership concerns about the future of their institutions.

### Institutions by Mission

Institutions also differ in terms of their focus and operations. As indicated by Figure 3, residential institutions require investment in technology to manage student accommodation, while commuter institutions may not have such a concern. Specialized institutions may require specialized technology. In addition, some institutions that are primarily teaching versus research institutions differ in type and scope of technological adoption.

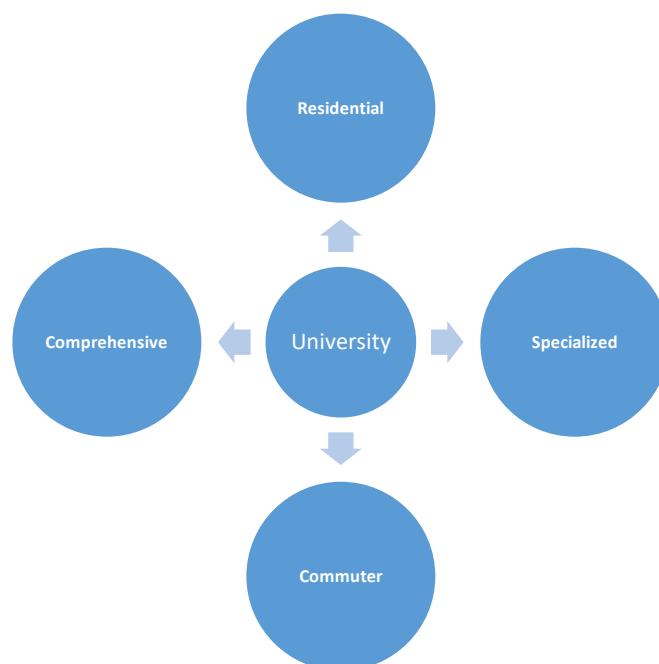


Figure 3. Types by Scope and Mission

### Degree of Concerns By Sectors

The degree to which institutional leadership worries about the future of their institution and the nature of their concerns depend on the categories. Figure 4 provides examples of areas of concerns by categories. There is hardly any institution in the US that is completely immune to enrollment challenges. However, the degree and nature of enrollment concern vary depending on the institution. While a temporary decline in enrollment tends not to present existential concern at most public institutions, the same cannot be said of the private institutions. Large, elite institutions' worries about enrollment may be limited to securing desirable enrollment profile rather than enrollment size. Enrollment profile may include racial diversity or quality of students or gender representation. To the extent that there are declining church goers in the US, diminishing population from which sectarian institutions can draw from may present high degree of concern to church-affiliated institution leaders. Finance presents an area of concern to most institutional leaders. However, the nature and degree of concern vary from institution to institution. To the extent that public institutions draw subsidies from the state and to the extent that the funding formula utilizes a buffer system against enrollment fluctuations, public institutions are relatively guaranteed predictable funding. The same cannot be said of the private institutions, especially in the for-profit institutional sector where apart from covering institutional expenses, returns on shareholders' investment are expected. The situation may be relatively better at the non-profit sector than for-profit to the extent that the institution is able to at least break-even.

Areas of Concerns	Public Institutions	Private Non-Profit Institutions	Private For-Profit Institutions	Sectarian Institutions	Secular Institutions
Enrollment	Moderate	High	Very High	High	Moderate
Finance	Low	High	Very High	High	Moderate
Competition	Moderate	Very High	Very High	Very High	Moderate
Government Intrusion	Very High	Low	Very Low	Very Low	Moderate
Technology Impact	High	Very High	Very High	Very High	High

**Figure 4. The Degree and Areas of Concerns By Institutional Category**

Increasing competition is a source of concern to institutional leaders in the United States. The degree of concern can be described as moderate in public institutions and secular institutions compared to the private and sectarian sector. The intensity of competition is, however, felt the most in the private higher education sector. Institutions compete for more students. Institutions compete for faculty, for staff, for grants, and for recognition. Competitive advantage depends on a number of factors including available resources and reputation.

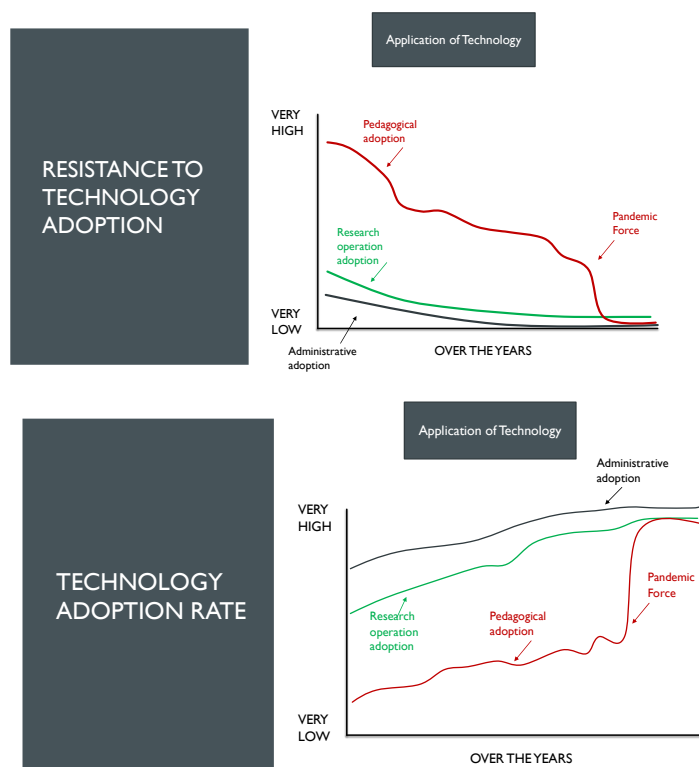
American higher education is not immune to the political winds. Unfunded government mandates are often a source of concern to institutional leaders. However, this worry is expected to be higher at the public higher education sectors compared to the private sector. Apart from measures taken to protect consumers, state and federal governments rarely intrude in private higher education and this is especially true in the for-profit higher education sector. That being said, observers will note that the US higher education institutions are more similar than different.

The degree of technology adoption is becoming increasingly a source of concern in higher education. I describe this concern as high to very high across the sectors. High in the public sector because of the availability of the state funds to acquire and stay abreast of technological innovations. Very high in the private sectors because of limited resources to acquire technology. Private institutions in the US often fund technology investment from their tuition-earned budget unlike the public institutions that can rely on capital investment from the state government.

Consequently, while all leaders of higher education institutions worry about their institutions, the reasons and degree of their concerns vary depending on the categories, the size, endowment, access to resources of their institutions. While a well-endowed institution has access to funds to invest in a state-of-the-art technology, impoverished institutions often struggle to keep up with their technology needs.

### **Focus of Technology Adoption**

Discussions about technology adoption in higher education tends not to differentiate institutions based on their types and mission. Two primary areas of adoption are important to note: Administrative Operations and Academic Operations, while Academic Operations is further divided into Research Operations and Teaching Activities.



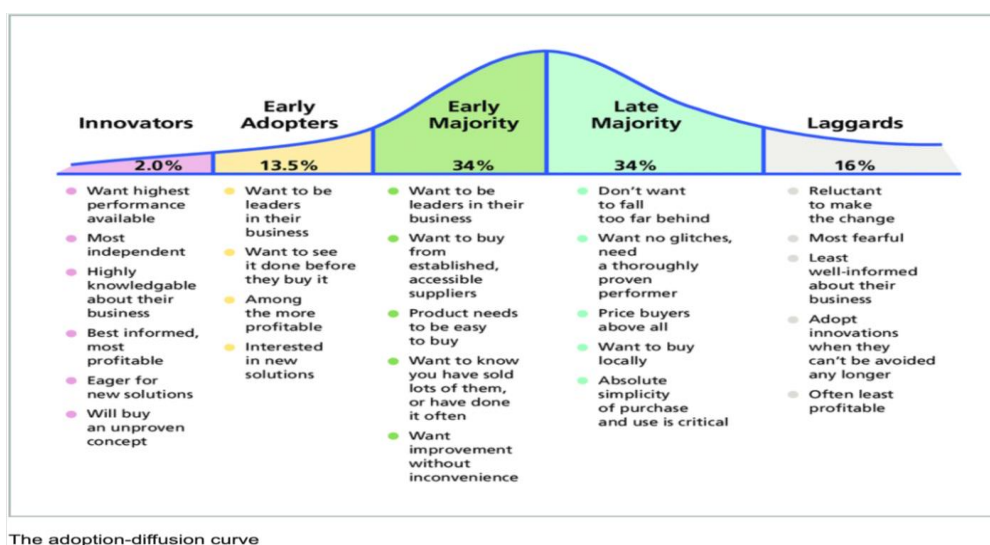
**Figure 5. A&B: Trends of Technology Adoption in Higher Education**

My personal observations of resistance to technology adoption in higher education over the years are depicted on Figure 5a, which is almost a mirror image of Figure 5b, adoption rates. Resistance to technology adoption to meet administrative operation needs has never been a major concern in higher education, especially compared to technology for pedagogical purposes. The same is also true in terms of technology adoption to meet the needs of research operations. Hence, as shown in Figure 5B, the rates of adoption of technology to satisfy the needs of administrative and research operations have been high over the years. Resistance in these two areas is generally limited to resistance to change, ease of use of the technology, training effectiveness, and availability of funds to acquire it.

However, resistance to technology for the purpose of teaching and learning has been, hitherto, problematic. Teaching and learning are intimate human transactions.



Initial resistance to pedagogical technology was due, in part, to the concern that technology would reduce the transaction to impersonal exchanges. There was also fear that technology would replace teachers. Also, most people teach the way they were taught; hence, lack of professional development to acquire new technology skills often produce technology adoption resistance. In addition, parental attitudes to pedagogical technology over the years have improved with the growing sophistication and improvement in technology.



The adoption-diffusion curve

**Figure 6. Adoption-Diffusion Curve**

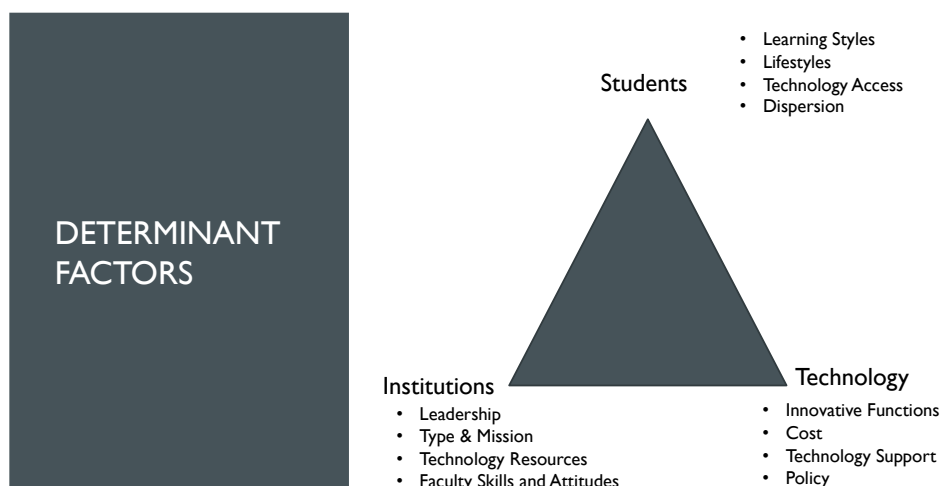
Source: [https://www.researchgate.net/figure/The-adoption-diffusion-curve\\_fig2\\_244111830](https://www.researchgate.net/figure/The-adoption-diffusion-curve_fig2_244111830).

Discussing how individuals and organizations react to innovation, David Abraham provided Figure 6 to illustrate technology adoption in higher education. While the bell-shape adoption theory is applicable in general, the COVID-19 pandemic changed the technology adoption rates in almost all institutions across the globe. Educators and educational administrators, in compliance with government order to stay in place and shut down of schools, had no choice but to quickly acquire and adopt available technology to continue their operations. Resistance to technology dropped overnight in 2020 as educational leaders scrambles for technology and with the government assistance in places like the United States where grants were released to acquire new technology, there was little or no reason to resist adoption.

### Adoption Determinants and the Future of Educational Technology

It would be myopic to assume that the ubiquitous adoption of technology during the pandemic has put an end to resistance to technology innovation in education. Human memories are short; hence, the need to continue empirical investigation and academic discourse on technology adoption in education.

Determinant factors are basically in three categories as shown in Figure 7. Factors relating to students, factors relating to educational decision makers or institutions, and factors relating to the technology itself will continue to influence adoption of innovative technology in education. With respect to students, technology that is tailored toward different learning styles of students would be superior to technology that forces learners to adopt one learning styles. It is important to also emphasize the fact that student lifestyles differ from generation to generation. Differences in lifestyles must be factored into technology adoption consideration. In addition, student access to technology and technology dispersion are important factors that may influence future educational technology adoption. Today's students are *Instagram, Tik-Tok, Snap-Chat* children with the penchant for consuming rapid, load, and shoot content. Relevant classroom technology that mimics this lifestyle is likely to gain acceptance among children of this generation.

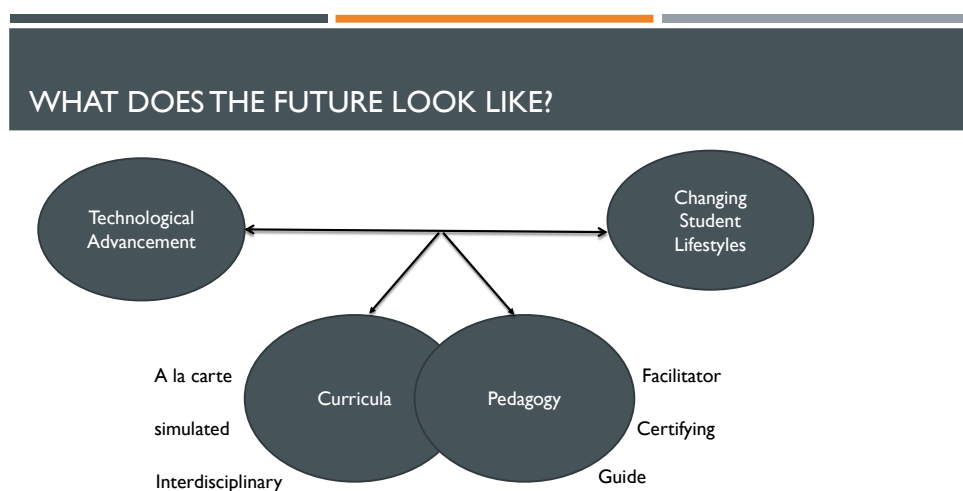


**Figure 7. Determinant Factors of Technology Adoption in Education**

Four factors of consideration regarding the institution are leadership, type of institution, resources, and faculty or teachers' skills and attitudes. Progressive leaders who attend regular educational technology workshops and who are always seeking personal growth influence their institutions differently from those who are preoccupied by the bureaucratic details of their job. Differences among institutions with respect to mission and operations are a factor in technology adoption. For example, commuter institutions differ from residential institutions and how they adopt and use technology will differ. Small and very large institutions may operate differently, and also liberal arts and clinical education institutions may require different types of technology to meet their operational needs. The level of resources available to acquire and maintain technology as well as faculty and teacher's attitudes to innovation and change and continuing professional development would continue to be major determinants in educational technology adoption.

With respect to the technology itself, four factors of consideration are technology sophistication, cost, support services, and policy. Whatever technology in the market today will become obsolete one day. My daughter always reminds me that *"Dad, no one watches television anymore!"* Apparently, whatever is on TV can now be accessed on her phone. Typewriter was an innovation years gone, which gave way to desktops that have now given way to laptops. The quest for technology innovation is an endless one and no one should rest on their laurels. Cost will always be a factor when considering adoption. To the extent that new technology is made avoidable, to that extent adoption would be heightened, all things being equal. Technology support and ease of use are critical factors. Educational technology that can be set up easily, maintained easily, and have 24/7 support service encourages adoption. Lastly, technology providers should consider the impact of their policies on adoption. Policies range from ownership, payment plan, service plan, transferability, etc. Policies that put the interest of the end-users into consideration and above the interest of the company will go a long way to aid technology adoption.

## The Future of Education and Technology



**Figure 8. Impact of Technology on Teaching**

As shown on Figure 8, curricula and pedagogy will continue to be influenced by two major forces: technology advancement and changing student lifestyles. Some have predicted that these two forces will lead to educational à la carte whereby technology would allow students to order content just in time for use. Already, there is great advancement in clinical education with sophisticated simulation equipment. For example, exposure to cadavers is fast disappearing in medical education with advancement of simulation. In addition, technology provides greater opportunity for interdisciplinary content and education.

Technology advancement and changing student lifestyles and learning styles compel the “sage on the stage” to become knowledge facilitator, whose role is to guide learning development and certify growth and competencies. Of what use to students to be taught information they already have in their possession? The challenge of the future is in helping students to think critical by accessing information at their fingertips and to apply themselves to the needs of society.

Reflecting about the future of university education, Professor John Dewar noted that

*“Universities of the future will offer you access to learning in real time, from anywhere. Your flexible learning experience will be available on-demand, 24/7 and will be tailored to what you want to achieve. And you’ll be able to study in multiple modes, switching seamlessly between on-campus, blended, or wholly online, to suit your lifestyle and fit study with your work and other activities<sup>1</sup>.”*

Also reflecting about university of the future, Stephanie L. observed that *“immersive learning experiences will no longer be a perk, but necessity...blended traditional and non-traditional teaching methods will become the norm...moving between borders and an gaining international outlook [will increase]...and student-focused learning will be essential<sup>2</sup>”*

### **Changing Issues in Higher Education**

Beyond technology related issues, the future of university requires leadership attention to other critical matters. In this section, I offer my observations of higher education issues that should be of concern to higher education leaders in the coming years. Table 1 presents the extent to which these issues are of major concern currently and how they are likely to be in the near future.

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<sup>1</sup> <https://www.latrobe.edu.au/next/will-universities-future-look-like/#:~:text=Future%20universities%20will%20be%20places%20where%20university%20and,innovation%20that%20actively%20apply%20research%20for%20community%20impact>.

<sup>2</sup> <https://www.topuniversities.com/student-info/choosing-university/what-will-university-future-look>

**Table 1. Current and Future Issues in Higher Education**

Current and Future Issues in Higher Education	Current	Future	Recommendations
<b>Cost Escalation</b>	High	V. High	Unbundle Costs, Efficiency
<b>Increasing Tuition</b>	High	V. High	Peg Tuition to Inflation, Affordability Strategy
<b>Diversity Challenges</b>	Moderate	High	DEI Plan and Strategy
<b>Quality Assurance</b>	Moderate	High	Data and KPI's Centric
<b>Globalization</b>	Low	Moderate	Embrace Strategically, Internationalization
<b>Increasing Litigation</b>	Moderate	High	Comprehensive Internal Audit, Conflict Resolution
<b>Changing Demography &amp; Student Lifestyles/Expectations</b>	High	V. High	Student Centric Institution & Customization
<b>Unfunded Government Mandates</b>	High	V. High	Anticipate and Prepare Ahead
<b>Enrollment Challenges</b>	High	V. High	Adopt Competitive Strategies
<b>Academic Program Reform/Discontinuation</b>	Moderate	V. High	Establish R&D Unit, Responsive to Society
<b>Retention/Graduation Rates</b>	High	V. High	Program Accountability Measures
<b>Value Proposition</b>	High	V. High	Market Relevance, Value Articulation
<b>Faculty Matters</b>	Moderate	High	Cultivation, Development, Rewards & Shared Governance

## Cost Escalation

Over the years, higher education has been criticized for cost escalation in some countries. In the US in particular, cost escalation has been of a major concern in higher education. BDO Alliance noted that

*As the number of tuition-paying students has decreased, the cost of attracting those students and operating a college campus has increased. Over the last few decades, many colleges have invested in new dormitory, athletic and student center facilities in hopes of enrolling more students. This has come at a cost, not only in terms of construction but also in terms of redirecting investments (such as the maintenance of existing buildings) to these new facilities. Other costs have also increased - including salaries for professors and other staff and the bill for healthcare and other benefits - all while institutions are faced with the very real need to lower tuition costs to support access to higher education<sup>1</sup>.*

Judging from the current trends in higher education, cost escalation will continue to be of high concern and of a very high concern in the nearest future. Solution to cost escalation in higher education includes government intervention by increasing

<sup>1</sup> <https://www.bdo.com/insights/blogs/nonprofit-standard/higher-education-in-the-u-s-%e2%80%93-rising-costs%2c-enrollment-challenges-and-the-need-for-innovative-solut>.

subsidies to public institutions, increasing grants to private higher education sectors, increasing institutional efficiency, and unbundling services and costs.

### Increasing Tuition

As shown on Table 1, high tuition is of major concern currently and likely to become of greater concern in the future. Govind Bhutada<sup>1</sup> presents a graph (Figure 9) that illustrates tuition increase over the years. As noted by Bhutada, “average college tuition and fees have increased by 1200% since 1980 while inflation is up by 236%.”

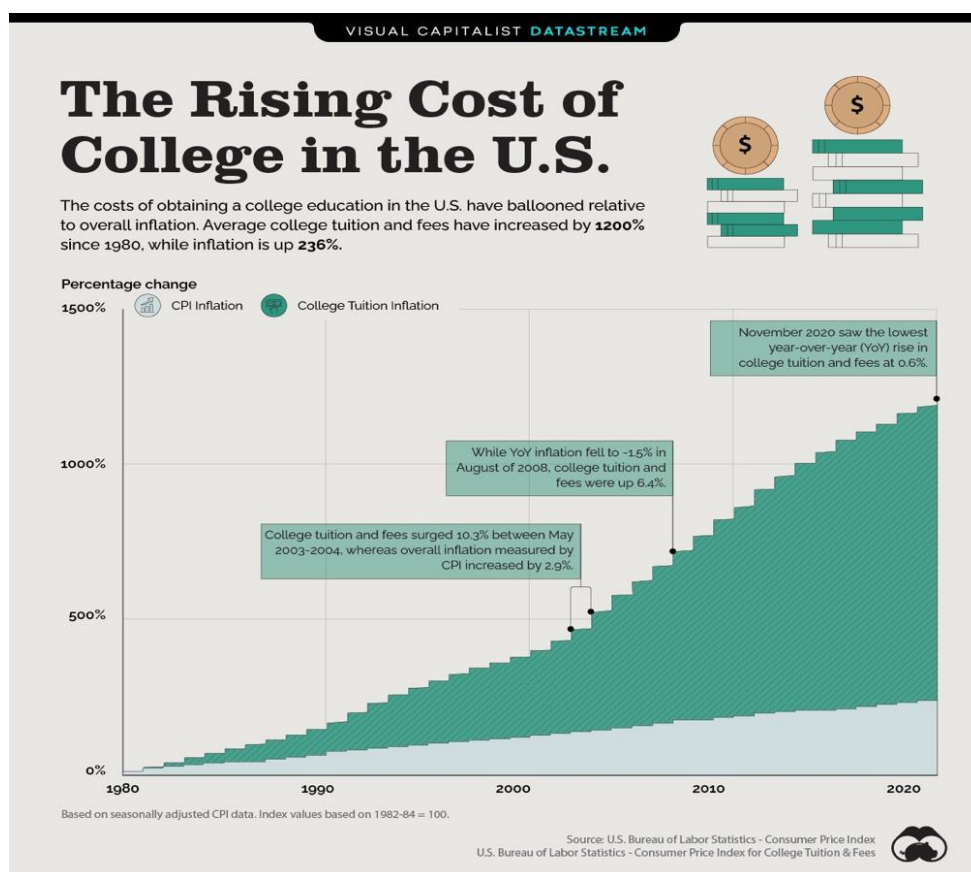


Figure 9.

<sup>1</sup> <https://www.visualcapitalist.com/rising-cost-of-college-in-u-s/>.

Decreasing government subsidies relative to institutional costs and rising general costs above inflation are likely going to continue to force institutions to increase tuition in the near future.

### **Diversity Challenge**

In the US, institutions are under pressure to improve diversity and inclusion among students, faculty, staff, and leadership. Often, institutions seem to limit diversity issue to gender and race. However, in the US as in many places, institutions will be compelled to broaden their commitment to diversity agenda to include equity and inclusion strategies that improve religious tolerance and the lives of people with different sexual orientations. As of the time of writing, the Chancellor of Purdue Northwest University, Dr. Thomas L. Keon<sup>1</sup>, was reported to have made an insensitive joke of Asian languages, a situation that resulted in outcry and demand for his resignation. To reduce the occurrence of this type of racist incidents, institutions need to focus more on education beyond students. Diversity, Equity, and Inclusion (DEI) programs will continue to increase in higher education in response to changing demography.

### **Quality Assurance**

Institutions are moderately concerned with quality assurance issues. However, quality assurance concerns are expected to continue to rise in the future as competition among institutions intensifies, students demand proven value added given the high cost of education, and employers demand graduates who are job ready. In response to this concern, the need for data informed decision making and KPI's based management will increase in higher education. Concerns for quality assurance have made institutional rankings a common practice in higher education even though the extent to which rankings actually measure quality is disputable. These concerns are expected to increase in the future.

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<sup>1</sup> <https://www.nbcnews.com/news/asian-america/purdue-northwest-chancellor-apologizes-racist-asian-language-impressio-rcna61778>.



## **Globalization**

Metaphorically speaking, the globe is shrinking. The world is becoming a smaller place. The need for global representation in higher education is low at the moment. However, the drive for global diversity will increase in the near future. As businesses, organizations, and government agencies seek greater transnational understanding and operations, production of global citizens and global leaders is becoming an important goal of higher education institutions. Effective responses from institutions will include the adoption of global diversity agenda and provision of global experience for students.

## **Increasing Litigations**

In the United States specifically, the number of litigations against institutions continue to increase. The US is a litigious environment, and this will continue to increase in the future. In 2020, Marjorie Hutter reported that

*Despite making inroads into higher education, mediation and other forms of conflict resolution have done little to stem the flow of litigation. “The 1990s have witnessed a continuing escalation in the frequency, spread and total costs” of legal liability claims against colleges and universities, according to a summary of the 1997 Legal Liability Coverage Survey. Taken together, job discrimination and sexual harassment claims accounted for 60 percent of all claims in 1997, nearly doubling since 1992. Meanwhile, legal defense expenses more than doubled during this five-year period, with average annual costs approaching \$110,000 at public institutions and \$175,000 at private institutions”<sup>1</sup>.*

Litigations add to cost escalation; hence, the reason for concern. To ameliorate increasing litigation, internal audit exercises to ensure systems are working as they should, internal policies are being followed, areas of potential vulnerability are proactively identified should be of top priority. In addition, effective use of conflict resolution programs to ward off court cases in higher education should also be of top priority to higher education leaders.

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<sup>1</sup> <https://www.mediate.com/conflict-resolution-and-litigation-rising-in-higher-education-what-gives/>.

### **Changing Demography and Student Lifestyles**

According to *The Change Leader, Inc*, changing demography is a growing concern in higher education in the US. In the article entitled “The Changing Face of Higher Ed Part 10: Changing Student Demographics”, The Change Leader stated that

*The changing face of college students and the changing student demographics will continue to offer new challenges for higher education leaders. Demographic trends, identifying new recruitment options, and working with K-12 education to enhance academic offerings at the lower levels all will need innovative thinking, collaborative decision-making, and inter-organizational partnering<sup>1</sup>.*

Declining traditional age students and increasing number of non-traditional students require institutions to adopt programs that are tailored to meet the needs of non-traditional students. For example, some institutions offer stackable credentialing that enables students to complete modular credentials in stages. Some institutions offer assistance to single mothers who may need to bring their babies to school. The changing needs of the new demography compel institutions to search for creative ways to support their new clientele.

### **Unfunded Government Mandate**

While unfunded government mandates are worrisome to public institutions, they are of major concern in private institutions. Eventually, public higher education institutions seek and obtain government assistance to meet cost-inducing mandates. However, private institutions often have to fund mandates from their own sources. Unfunded government mandates are laws passed by the government that put financial burden on institutions' efforts to comply or implement the laws without government financial assistance to that effect.

Commenting on the impact of unfunded government mandates in the US, Stephen K. Bailey observed that “*Fellowship funds have been robbed,- academic priorities have been skewed, dangerously high tuitions have been increased even further. In one large public institution, the annual cost of implementing federally mandated social programs rose in the period 1965-75 from \$438,000 to \$1,300,000. In one medium sized private institution, the costs jumped in that same period from \$2,000*

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<sup>1</sup> <https://changinghighered.com/changing-student-demographics/>.

to \$300,000. In a large private institution, the comparable figures skyrocketed from \$110,000 in 1965 to \$3,600,000 in 1974-75.<sup>1</sup>”

To help ameliorate the impact of unfunded government mandates, the Federal Government in the US passed the Unfunded Government Mandate Act (UMRA) in 1965. In spite of this law, institutions, especially in the private sector continue to consider them a source of concern.

### Enrollment Challenges

The rate of growth of the world population is expected to decline in the nearest future. The effect of this decline is beginning to be felt in the declining number of traditional college age students enrolling high higher education. Several factors contribute to the slowing population growth.

**Table 2. Top Countries with Declining Population**

Top 20 Countries with the Fastest Population Decline 2020-2050 (United Nations 2019)					
Rank	Country	Decline 2020-2050	Rank	Country	Decline 2020-2050
1	Bulgaria	22.5%	11	Romania	15.5%
2	Lithuania	22.1%	12	Greece	13.4%
3	Latvia	21.6%	13	Estonia	12.7%
4	Ukraine	19.5%	14	Hungary	12.3%
5	Serbia	18.9%	15	Poland	12.0%
6	Bosnia and Herzegovina	18.2%	16	Georgia	11.8%
7	Croatia	18.0%	17	Portugal	10.9%
8	Moldova	16.7%	18	North Macedonia	10.9%
9	Japan	16.3%	19	Cuba	10.3%
10	Albania	15.8%	20	Italy	10.1%

Source: <https://worldpopulationreview.com/country-rankings/countries-with-declining-population>

<sup>1</sup> <https://files.eric.ed.gov/fulltext/ED118016.pdf>.

More than ever before, modern women delay getting married, childbirth, and they have fewer childbirths than their parents. Table 2 provides a list of countries currently experiencing population decline. Rates of decline are predicted to range from 10% in Italy to 22.5% in Bulgaria from 2020 to 2050. Options available to higher education leaders include marketing to and enrolling nontraditional students and adopting competitive strategies to attract, retain, and graduate students.

### **Academic Program Reform/Discontinuation**

It is widely known that more than before, people are likely to change careers several times before their retirement. Hence, professionals return to upgrade their skills and education or turn completely to different disciplines. This is more so as old jobs are fading away and new jobs requiring new skills are being introduced. Demand for traditional disciplines is declining in some places as graduates are finding it harder to secure employment upon graduation.

Consequently, academic program reform and discontinuation will become a major concern in the future. Institutions would have to establish research and development units to monitor changing job markets and collect and analyze data to determine what new academic programs to develop and which ones to discontinue.

### **Retention and Graduation Rates**

While retention and graduation rates have always been of some concern in higher education institutions, they have become a major source of concern since ranking agencies factor these rates into ranking methodology. In addition, as competition for students intensify, so does the concern of losing them before graduation is rising. Also rising is the cost of recruiting students and that makes attrition a serious loss of revenue.

Low retention and graduation rates portend one or two things. Inability to meet the needs of admitted students often result in student attrition, an obvious failure on the part of the institution. Low retention and graduation rates could also be as a result of false advertisement, a case of promising what cannot be delivered or using gimmicks to entice students just to obtain their money. Either way, high rates of student attrition do reflect well on institutions affected. To improve retention and graduation rates, institutions would have to take responsibility to ensure the success

of the students they enroll. The summary of literature on retention and graduation suggests student drop out for three reasons: poor academic performance, financial problems, and/or psychosocial issues. To lower attrition, each program must study why their students drop out and adopt program relevant measures to address this challenge.

### **Value Proposition**

The increasing cost of education compels prospective students and parents to consider the cost-benefit approach to college education. As tuition escalates, the value of college education will continue to be of major concern. It is up to institutions to demonstrate that the returns on college education investment are worthy and persuade prospective students to commit their precious resources in pursuit of the education they offer. Many institutions in the United States offer career guidance services, support graduates in securing jobs, and some go to the extent of providing additional education for unemployed graduates who may wish to retrain for other professions.

### **Faculty Matters**

Faculty issues range from the challenges of finding qualified faculty (professors), retaining faculty, achieving faculty diversity, ensuring faculty promotion through the ranks, assisting faculty to obtain tenure, respecting academic freedom, adopting effective shared governance, establishing faculty grievance system, ensuring faculty professional development, supporting faculty research and teaching activities to the challenges of coping with faculty loss and death. The extent to which these challenges are of major concern varies from institution to institution and from time to time. From my personal experience, institutions of excellence are often those that invest in their faculty welfare and those that cooperate with faculty leadership to implement effective shared governance systems. Faculty matters will continue to be of high concern to institutional leaders in the near future insofar as a university is as good as the collective body of its faculty.

**Conclusion**

The number and proportion of those seeking higher education are increasing from country to country; hence, the number of the college educated continues to increase globally. Criticism of university education notwithstanding, majority of corporate employers prefer those with college education over those without; thus, the proportion of the unemployed declines with every level of advanced university degree. While demand for college education is expected to continue to increase, the impact of the increase will be felt differently by institutions. Some institutions will experience decline in enrollment, while others will gain. Some institutions will survive, while others will thrive.

Institutions that adapt successfully, embrace technology appropriately, and respond effectively to the changing market environment will continue to grow and become more relevant to the needs of society. Technology adoption became critical during COVID-19 pandemic that forced institutions to shelter in place. While the jury is still out as to what institutions will do with technology post pandemic, health professionals predict that COVID-19 will not be the last pandemic we face. Therefore, it behooves education leaders to continue to explore how technology is likely to alter future production and consumption in higher education.

Beyond technology, some higher education issues will become critical in the future. Finance, enrollment, value proposition, diversity are a few of those issues that must command attention of higher education leaders. The extent to which each of these issues will be critical varies from institution to institution; hence, each institutional leader should pay attention to issues of specific importance to his or her own institution. One size strategy will not fit all insofar as institutions vary in scope, size, mission, resources, and insofar as they operate in different environments. Nevertheless, it is inconceivable that future strategic plans of any institution would be complete without strategic attention to some if not all the issues identified.

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