



COVID 19 and Global Higher Education: Challenges & Imperatives

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Abstract

On March 11, 2020, COVID-19—an infectious respiratory disease caused by a novel coronavirus that emerged in Wuhan, China—was declared a pandemic by the World Health Organization. As of April 1, 2020, more than 3.4 billion people, representing 43 percent of the world population, are in lockdown in more than 80 countries and territories around the world.

The COVID-19 pandemic is having an enormous impact on higher education. In many countries around the world, campuses are closed and teaching has moved online. Internationalization has slowed down considerably. Despite these challenges, HEIs have reacted positively, often implementing new solutions to continue providing teaching, research, and service to society.

Lockdown and social confinement measures have an enormous impact on higher education. Higher education has been disrupted as never before, but the fact that campuses are physically closed does not mean that higher education institutions (HEIs) have stopped functioning. On the contrary, faced with multiple challenges, they have had to respond quickly and find new solutions to previously unknown problems and new ways in which to continue teaching, conducting research, and serving society.

This research study attempts to examine the current challenges and initiatives of Institutions and universities imparting higher education. To help higher education leaders navigate enrollment uncertainty, prepare for a number of different scenarios, and act with real-time information, this research study is conducting ongoing research and analysis to understand students' perspectives and concerns about their enrollment decisions. The study further provides recommendations to the education **leaders based on the responses collected and findings drawn from the survey.**

Key Words – HEI, Online teaching, Employability, Enrolment

Introduction

The COVID-19 pandemic continues to take a massive toll on lives and livelihoods around the globe. The public-health crisis and economic devastation we are experiencing now have thrown entire industries and institutions into turmoil. Higher education leaders responded quickly by moving to remote learning for the remainder of the 2019 academic year. With the possible disruption to social gatherings presented by the coronavirus, there is increased discussion around planning for the use of online learning as a continuity plan for most universities and schools. But they now face a new challenge: 2020 enrolment. Understanding the potential impacts of COVID-19 on enrolment is critical. In a recent survey, 86 percent of college presidents put fall or summer enrolment numbers at the top of their most pressing issues in the face of COVID-19.¹

The predictive-enrolment models that leaders have used to plan classes won't hold up in a COVID-19 world. Much will be tested, including an institution's ability to serve and educate all students and create the sense of community and vibrancy typically found on campuses nationwide—and their ability to do so in a financially sustainable way; tuition and fees make up 26 percent of revenues for four-year public institutions and 35 percent for four-year private non-profit institutions.² As we have seen, the effects of COVID-19 are not playing out equitably, which higher education leaders must take into account as they make decisions for their schools' futures.

Key Words – HEI, Online Teaching, Research, employability

Research objectives

1. To examine the current challenges and initiatives of institutions/universities imparting higher education.
2. To provide interim solution to institutions/universities for emergency remote teaching specifically focusing on lecture-based classes with some considerations for more active learning environments.
3. To study the impact on teaching, research and international programs.
4. To understand students' perspectives and concerns about their enrollment decisions by conducting a survey of students,
5. To study the initiatives and efforts of institutions/universities to improve the employability of their students taking into consideration the careers in the changing era and the skill sets required for the same
6. To provide concrete recommendations to education leaders for better decision making in the post Covid-19 uncertain world.

Data analysis

Challenges and Initiatives

1. Challenges to Internationalization

The first aspect of higher education impacted by COVID-19 has been internationalization, in particular student mobility. At the beginning of the epidemic, HEIs in countries not yet affected had international students on their campuses who were citizens of affected countries, or had their own students on exchange at HEIs in affected countries.

With the imposition of travel restrictions, international students deciding to interrupt their stay either managed to return to their home countries or found themselves forced to remain in their host countries. HEIs adopted different solutions to these situations, such as working with governments to ensure the repatriation of students and providing additional support to international students held up in host countries (e.g., allowing them to remain in student dormitories even after the end of term).

2. Impact on Teaching

The lockdown posed other, more complex, challenges to campuses. The primary challenge related to continuing teaching when students, faculty, and staff could no longer be physically present on campus. The obvious solution was to expand online teaching.

In a relatively short time, HEIs have been able to move whole programs of study online with some having to start a new term fully online. HEIs in China have been the pioneers of this evolution toward online teaching and were soon followed by HEIs in other parts of the world.

However, there are several challenges to moving teaching and learning online; the most obvious is unequal access to information and communication technology. In some countries, such as Brazil, internet access for students is so limited that some HEIs have decided to close completely. Moving their teaching online would only benefit a very small percentage of their student body, thus perpetuating and enhancing a huge inequality and disparity in

opportunities, allowing rich students to continue their studies and leaving poor students behind. Another, less obvious, challenge is the quality of online provision when staff are unprepared, in a context of emergency.

In such cases, collaboration with governments, businesses, and nongovernmental organizations is vital to ensure that no student is left behind. This is the approach adopted by the UNESCO Global Education Coalition, an initiative to support countries in sharing and scaling up their best distance learning practices. The coalition's main focus is on primary and secondary education, but higher education is included as well.

3. Impact on Research

COVID-19 is having both negative and positive impacts on research. On the negative side, COVID-19 is making it impossible for researchers to travel and work together properly, and is therefore complicating the completion of joint research projects. On the positive side, many HEIs are committing their labs and teams to research on COVID-19, searching for a vaccine and/or for drugs capable of treating the disease, or collecting and disseminating information on the disease. The COVID-19 Data Center of John Hopkins University, for instance, tracks daily global trends on COVID-19 worldwide.

4. Societal Mission of Higher Education

Besides HEIs with medical hospitals, which are at the forefront of the fight against COVID-19, many HEIs around the world are helping their local communities by housing patients on their premises, making research publications publicly available, or informing local communities on preventive measures against the spread of the disease. While COVID-19 is an unprecedented challenge for HEIs around the world, HEIs are actively undertaking initiatives to fight the virus and minimize the disruptions caused by the pandemic.

5. Global Cooperation Paramount

Due to the unequal share of resources and capacities among HEIs around the world, global cooperation is paramount. Without cooperation, the search for a vaccine and/or a treatment for COVID-19 would be slower and inefficient; teaching would only be beneficial to part of the student population, exacerbating inequalities; and the benefit for society would be reduced to a minimum. We do not yet know the medium- and long-term effects of the pandemic on health, the economy, and the sociocultural dimensions of our societies, but they will be multiple and complex to mitigate.

6. Actions of the International Association of Universities (IAU) to Promote Global Cooperation

In order to promote global cooperation and support HEIs, the IAU has developed various initiatives. First, IAU launched a global survey on the impact of COVID-19 at HEIs around the world. The results of the survey will help better understand how the epidemic is affecting HEIs in different parts of the world. Once the pandemic is over, IAU plans to conduct a second version of the survey in order to monitor its medium- to long-term effects and map actions undertaken by HEIs both as immediate responses to the pandemic and for the future. IAU is also collecting and sharing resources on COVID-19 and will conduct a series of webinars reflecting on the future of higher education in a post-COVID-19 world.

This unprecedented crisis reaffirms that in such difficult times, sharing resources is the only way for the global higher education community to rise to the challenge and proudly claim its fundamental role in society.

7. Interim solution for emergency remote teaching and is specifically focused on lecture-based classes with some considerations for more active learning environments.

The Basics

Basic Student Needs

Students will need to access readings and course materials and a way to submit assignments and receive feedback on their work. They also will need a way to send you questions, and they will need to know when and how you will respond to them.

Basic Instructor Needs

You need to deliver your *content*, for lack of a better term, to your students, and to communicate with them. There are many types of necessary communication in this situation. Students need to know what to do, how you want them to do it, how to submit it to you and how to get your feedback on their work.

Meeting Those Needs

All these needs are things that can be readily handled by a learning management system, if you have one, and most universities and schools do have one these days. As a bonus, the skills you are developing in this time of need can come in handy when you resume your face-to-face class. You can continue using the LMS to distribute handouts and other course documents and for students to submit assignments, post questions and access readings. While many instructors may be exploring the use of social media (e.g. Twitter hashtags or other options), you may find it's best to stick with institutionally supported tools and infrastructures since those will have dedicated support for you and your students as well.

Beyond the Basics

The above steps are geared toward helping you set up a functional, temporary online learning environment for your class(es). The recommendations above are not designed to take the most advantage of the online learning environment and some of the tools and other affordances. Nor does this account for various systemic and/or equity issues that may arise from a sudden shift to online, such as whether students will have reliable internet access. While some of these affordances would take more significant planning and development than you are likely wanting to invest in right now, there are others you may want to consider.

Interactive Learning

Many live meeting tools have features like breakout rooms that allow you to break your class into small groups and go from room to room to talk with each group. If your class is more engaged in active learning, you may find using this feature helpful. Some of these tools also allow you to do polling during a live class or post quiz questions. Often, these tools also have a screen-sharing feature that allows you and students to share your screen. This can be useful if students are working on projects and you want them to share and talk through them or have them give presentations. If you will be online for a time when you planned for group work or sharing, be aware of your options and plan accordingly.

Many of the resources in the link below have more about using these live online environments.

Collaboration

Part of your in-class plan may involve student collaboration on creating a project or working on a paper together. Today, even for in-class work, students are often using tools like Google Docs to work together. If you have some assignments or activities where you want students co-creating some sort of assignment or submission together, consider having them work in Google Docs, Google Sheets or some other sort of online collaborative software and allow them to submit assignments in that format.

Flexibility

Flexibility will be key to ensuring students are not put at a disadvantage by a sudden move to online. Consider implementing flexible deadlines for when anything is due and flexible methods for how students will complete an assignment or demonstrate their learning. Using asynchronous recorded talks instead of requiring synchronous meetings can provide everyone important flexibility as well. In addition, assume at least some students will use phones or tablets for accessing class and completing and submitting their work. There are times that leads to difficulty with viewing, submitting or accessing live sessions. Make sure you record any live sessions and make those recordings available or use methods that allow students to reach you by phone and email, not just by video chat. (Torrey Trust, from the [University of Massachusetts at Amherst](#), has put together a Google slide deck with more on UDL considerations and a host of great ideas.)

You may find that a number of students rely on the physical university infrastructure, such as computers at the library, and will not be able to access remote solutions, especially on such short notice. Be available by phone and email and actively invite students to reach you any way they can and share if they are having difficulties so you can monitor and adjust accordingly.

Access to Additional Resources

Students are probably going to need access to additional resources -- like the library -- to complete their work for your class. Identify what your library plans to do and what they have available and create a section in your course site with links to online library resources as well as links to other types of resources students may need to access at a distance.

Preparing Your Own Space

Finally, it's important for both you and for your students to get the right equipment. You may already have most of these, and you do not need costly options for any of these to be functional:

- Laptop, desktop or tablet.
- Headphones or earbuds -- the biggest impediment to online communications is poor audio quality, so make sure you have a headset or earbuds; this is important to eliminating audio feedback loops, background noises, and other disruptions.
- Microphone -- may already be built into your device, computer, camera or as part of a separate headset.
- Webcam -- may already be built into your device or computer.
- Internet -- this all does require reliable internet service; a wireless hotspot on a high-speed network may also suffice.
- Backdrop -- make sure what students see behind you for any live or recorded video is clean and professional.

8. Survey of students & Findings

- **Decision of students about choosing college** - The theme underpinning many of our findings is uncertainty. Many high school students have not finalized their decisions about college—from where to study to whether to enroll—which presents planning challenges for leaders and enrollment officers. Between the start of the pandemic and now, some high school students have changed their plans. And as of April, around 8 percent no longer plan on enrolling in a full-time bachelor's degree program; however, this is counteracted by a similar boost of students who are newly choosing to enroll, who had previously planned to either enroll in a part-time or two-year program or not enroll in school at all. Altogether, the total number of high school students planning to enroll in a full-time bachelor's degree program could remain largely unchanged (Exhibit 1). Indeed, students seem optimistic, with 37 percent reporting that they believe things will “go back to normal” within three months (by around the end of summer), and another 27 percent expecting “normal” within five months, which could be the reason the numbers are fairly steady.

- Students' first-choice schools are changing

Since January 2020, just over one-fifth of students have changed their first-choice school, citing cost and location as their top reasons for doing so

- **Students who changed their first choice are increasingly opting for in-state public institutions or institutes near to their home** - Of those students, 44 percent reported wanting to attend a school with a lower cost of attendance, 30 percent wanted to stay closer to home, and 26 percent wanted to avoid a COVID-19 hotspot at their first-choice school's location. Indeed, we found that students choosing an in-state, public institution increased by ten percentage points. Moreover, an analysis of distance between chosen schools and students' reported home zip codes found that students choosing an institution located within 50 miles from home increased by 11 percentage points, while students choosing to attend an institution located more than 500 miles from home decreased by seven percentage points
- **A significant portion of students may continue to be at risk in terms of readiness, willingness, or ability to enrol-** A significant portion of students reported that COVID-19 had affected their readiness, willingness, or ability to attend a higher education institution. For example, 45 percent of students said that COVID-19 had had a strong or extremely strong impact on their emotional and mental preparedness, while 30 percent reported a strong or extremely strong impact on their ability to afford school. Almost a third of respondents shared concerns about their academic preparedness for school, likely because of the unforeseen disruption in learning during a pivotal year of high school.

Variances in trends among demographics also emerged in our findings. For example, 41 percent of Hispanic or Latinx students report a strong or extremely strong impact on their ability to afford school; 40 percent of

students from lower-income households report the same—an increase of 10 to 11 percentage points from the general population

While overall college preparedness is top of mind during the pandemic, the possibility of remote learning adds complexity for higher education institutions. Only 25 percent of students responding to the survey agree that they feel prepared for a remote freshman year of college, compared with 54 percent who believe they are prepared for an in-person first year. In addition, only 23 percent of students are confident they can get a quality education through remote classes, and just 19 percent are confident they can build relationships in a remote environment.

- **In case of a Remote fall learning semester , students report that they defer enrollment or look for a different school** - These and other concerns are contributing to enrollment uncertainty in the case of a remote fall semester, and the number of students changing their enrollment plans may yet more than double. Nearly half of the students surveyed report being very likely to change their plans: 15 percent of those students are very likely to defer by at least a semester, and up to 45 percent are very likely to look for a different school (Exhibit 5). The most commonly cited reasons include doubts about the quality of remote learning, the lack of campus experience, and the costs—the latter of which may be seen as too high for an online experience. If institutions have to shift to remote learning in the fall, 32 percent of students report that they're most likely to look for schools with better online capabilities, 29 percent would look for lower cost of attendance, and 25 percent would look for greater job-placement resources. The vast majority of students (83 percent) expect a tuition discount in the case of a remote fall semester, which, combined with potentially lower enrollment, would significantly affect university revenues.
- The challenges of remote learning are not distributed equally

Particularly concerning is the fact that students' ability to succeed in a remote-learning environment may differ greatly by income levels. Less than half (40 percent) of students from lower-income households report being able to get the necessary equipment for remote learning compared with 72 percent of students from high-income households. Furthermore, only 56 percent of students from low-income households report having reliable internet access and 45 percent report that their home environment could support remote learning, compared with 77 percent and 64 percent of high-income students, respectively

Careers in changing era -initiatives to increase employability - Colleges, witnessing a shift in perception about their own value, have sought adjustments to their model by making promises to students that they'll encounter experiences that prepare them for the workforce. Some colleges have merged scores of majors in disparate fields like computer science and English. Others have promised every student an opportunity to work as interns or in co-ops, or to take on learning projects to show off their research mettle to employers. Some colleges are ensuring their professors know which broad competencies employers want in recent grads through focus groups with career services staff. More community colleges are pushing work exploration into the early part of the curriculum so that students see the connection between their studies and employment. Others offer innovative courses in anthropology for students to research the world of work and discover careers that pique their interest. These changes are sincere but hardly dramatic. Professors still teach, career service advisers continue to connect students to internships and co-ops, and presidents proceed with their concerns about a perception of value in a time of rising prices for a college education.

Suggestions /Implications

In the virus-contained scenario, we envision that most students will complete the current semester online, and the class of 2020 will graduate virtually—that is, without a formal on-campus ceremony. Beginning in the summer, rules on travel and events will loosen to some extent, although study-abroad programs might not resume just yet. Although additional health safeguards will be necessary, students will be able to return to class for the fall semester. However, restrictions will remain for some international students, and many members of the incoming class will have had disruption in the last months of their high-school educations.

Even this relatively optimistic outlook is likely to pose significant challenges to higher education. The sudden shift to online learning is already stretching existing infrastructure; faculty with little or no experience in teaching in this environment may struggle. Courses with a high level of hands-on components—such as clinical practicums, labs, and performing arts—will be particularly disrupted, and students in these fields may have to delay graduation to fulfill requirements. Exams will have to be held online, making it impossible to administer closed-book tests.

In the other two, more pessimistic scenarios, most schools will be exclusively online through 2020 and into 2021. Travel will be greatly limited, and large events will not take place. Study-abroad programs will be canceled through 2021. The incoming class of first-year students will start college without an on-campus orientation. Faculty will have to make longer-term changes to their curricula and teaching approaches. A notable share of the class of 2021 will not graduate that year.

Implications for student enrollment, equity, and experience

In the virus-contained scenario, the main impact will be on persistence, as students and faculty will struggle to adapt to online coursework. Institutions with limited records of creating a compelling online experience could be hurt if their current students are dissatisfied with their digital offerings and decide to go elsewhere. Students might also delay returning until campus life is back to something close to normal.

In terms of equity, lower-income students will suffer disproportionately. They are less likely to have the resources, such as PCs and high-speed-internet access, to enable them to succeed in an online-learning environment. They will also face the most immediate financial challenges, with many industries laying off employees and on-campus employment mostly ended.

As for the student experience, hunkering down at home with a laptop and a phone is a world away from the rich on-campus life that existed in February.

In the virus-recurrence and pandemic-escalation scenarios, higher-education institutions could see much less predictable yield rates (the percentage of those admitted who attend) if would-be first-year students decide to take a gap year or attend somewhere closer to home (and less costly) because of the expectation of longer-term financial challenges for their families. International enrollment could be severely hit because of ongoing travel restrictions and fear. Both trends would depress enrollment.

On the other hand, higher-education enrollment has traditionally increased during recessions. For example, during the global financial crisis of 2008–09, US undergraduate and graduate enrollment grew by about 5 percent and 10 percent a year, respectively, until 2011, netting a trough-to-peak addition of almost three million students.¹ There could also be a rebalancing of students between schools. Specifically, schools that are more affordable and those that have a strong, well-developed online-learning infrastructure could see enrollment rise. Almost half of US colleges and universities had no formal online-education programs in 2018²; they may find it more difficult to attract and keep students.

Implications for faculty and staff

In any scenario, faculty will be under intense pressure to develop and deliver online courses. Beyond that, cancellation of kindergarten through 12th grade could affect faculty members with children and compromise the availability of staff services. Mental-health resources could see greater demand. And with

campuses shut down, it would not be easy to know what to do about staff whose services are not needed as much but who are members of the community and rely upon that income.

In the virus-recurrence scenario, scientific and medical research will be difficult to continue, and a poor economy would likely mean fewer grants. Finally, even if downsizing has been avoided through the summer, it may become inevitable in this scenario. Many higher-education institutions simply will not be able to keep paying all their personnel in full when there are no students on campus.

Implications for infrastructure

In the few cases in which students remain on campus, they need to be kept healthy and physically distanced. Even when there are few or no students around, universities must continue to support faculty and staff. In both cases, campus health systems may be feeling the stress. Universities with academic medical centers are on the front lines of care for their communities. If the number of COVID-19 cases requiring intensive care and ventilators rises steeply, academic medical centers could find themselves in dire straits.

In the virus-recurrence and pandemic-escalation scenarios, dorms and other infrastructure will remain empty through 2020 or beyond. In both scenarios, that infrastructure might be used by healthcare authorities for medical staff or for quarantine. Meanwhile, IT infrastructure will need upgrading, including the integration of new learning software and tools to maintain teaching standards, as courses move online.

Implications for finances

For most colleges and universities, COVID-19-related developments will put their budgets under even more pressure. In the virus-contained scenario, current-year tuition revenues will likely fall, given refunds for study-abroad programs and the likely reduced persistence of students. Also, because online programs have traditionally been cheaper, universities are already facing calls to refund portions of regular tuition. Next year will likely see fewer international students enrolled. Auxiliary revenues (room, board, athletics, rentals, grants, and other nontuition revenue sources) will erode as refunds or vouchers for next year are issued for housing, meals, and parking—and if summer programming is disrupted or canceled.

In the virus-recurrence scenario, the situation would be worse for both tuition and nontuition revenues. Tuition revenues will dip for many schools, with reductions in international-student enrollment, cancellation of study-abroad programs, and increases in attrition, especially for schools with limited online-delivery capabilities. Nontuition revenues will also remain low, with all large events and conferences postponed and fall sports canceled. Fundraising will also be challenged in the context of a broad economic downturn. If the stock market stays weak, the value of endowments will fall.

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