

The Implications of the COVID-19 pandemic on University Organization and Governance

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Abstract

Emerging in December 2019 and becoming an international public health emergency as of mid-March 2020, the coronavirus pandemic has swept the world. The rise of COVID-19 has altered social interactions while also substantially transforming how organizations operate. Universities have been one of the most widely affected institutions. Since the imposition of worldwide quarantine measures, they have had to adapt to new administrative practices quickly. As such, this paper addresses the effects COVID-19 has had on university operations in the developed world. Specifically, this paper examines what the long-term effect of COVID-19 will be on university organization and governance. This research analyzes six areas of interest. The first section focuses on the effects the coronavirus has had on university pedagogical activities. We illustrate the hybridization of the teaching process as a result of the transition to online learning. Next, we discuss the adjustments university researchers have made to continue their work within a pandemic world. We emphasize how research collaborations and data collection will have to change post-epidemic. The third section serves to highlight the difficulties students, as well as university professionals, are facing. Here, the paper underlines how universities are dealing with issues concerning stress and mental health. The following section considers international students' economic saliency, elaborating on how universities will need to adjust to maintain their financial stability while remaining academically appealing to overseas students. The fifth section concentrates on the changes made by universities regarding administrative and operative functions. Finally, we analyze the work of universities surrounding the implementation of an emergency preparedness plan, principally looking at the steps these academic institutions are taking to minimize any future health crisis's detrimental effects.

Key Words: University, Governance, COVID-19, Pandemic, Transition, Online Learning

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Introduction

The novel coronavirus pandemic has shaken the world and completely altered societal interactions. As of mid-March 2020, governments around the world have imposed quarantines and social distancing measures as safety precautions, “UNESCO reported that the COVID-19 outbreak disrupted the education of at least 290.5 million students” (Ozili & Arun, 2020, p.13). Consequently, this has substantially altered how universities function, notably, the university management and governance practices. This document examines the short-term responses universities have implemented and analyzes what long-term implications these policies will have moving forward.

This research focuses its analysis on the responsiveness of developed states like Canada, the United States (US) and the United Kingdom (UK). These countries’ populations generally have more significant access to the Internet and electronic equipment, facilitating their universities’ transition to online learning. In the future, we hope to develop a comparative study of developed and emerging nations to highlight the differentiation in university responses to COVID-19 due to varying levels of internet accessibility and resources. For now, this paper focuses on the distinct levels of human and organizational preparedness illustrated by universities in the developed world.

To examine the long-term effects of COVID-19 on university governance, it is essential to define this term clearly. To do this effectively, we briefly analyze how other scholars have conceptualized university governance. Gayle, Tewarie & White have defined university governance as it pertains to the “structure and process of authoritative decision making across issues that are significant for external as well as internal stakeholders within a university” (Gayle, Tewarie & White, 2003, p.1). These authors focus on the importance of the role decision-makers play in controlling institutional outcomes and how individual leaders' attitudes and principles can impact an institution's governance and structure (Gayle, Tewarie & White, 2003). They stress how organizational culture can also influence how an establishment manages and how it sets institutional priorities. Contrastingly, Harman and Treadgold emphasize the aspect of university governance that deals with the organization and management. They look more intently at how

institutional structure influences decisions rather than at the decision-makers themselves. The majority of the definitions do not necessarily address university governance directly. Instead, they discuss the components of corporate governance. These types of definitions situate governance as a structural mechanism—a means of control and influence. Corporations use governance to set, manage and achieve their objectives (Goedegebuure & Hayden, 2007). These works illustrate a dichotomy between scholars, who focus on the role of actors and their decisions (agency), and those that concentrate on the impact of institutional structure (structure-based). Our definition combines both of these approaches.

Within this research, we take university governance to be an amalgamation of both strategic and operational management. This is in line with the argument made by Michael Shattock, who claims that good university governance is a combination of structural procedures and strategy (Shattock, 2012). We focus on university development planning, transformations, and innovations related to societal needs from the strategic perspective. We refer to the everyday organization of academic activities such as teaching, research, student support activities, international cooperation, financial and logistical resource management from the university's operational management. That is to say, all determinants that enable the strategic vision and academic agenda. In this respect, we examine how university actors have been affected. Our work intends to illustrate how the strategic and managerial components that compose university governance have changed due to the coronavirus.

Therefore, the first section of the paper focuses on how COVID-19 has altered universities' pedagogical activities. Mainly we intend to illustrate how one of the most conclusive changes within post-secondary institutions has been the *hybridization* of the learning process. Next, we highlight the effect the pandemic has had on university research practices. Primarily as a result of travel restrictions and limited funding. The third section discusses how universities have adapted their services and procedures to meet the needs of their students and professional community. Subsequently, we illustrate the long-term impact of universities' international community, mainly about the constraints on global mobilization. The following section looks at how university governance structures have changed and will continue to change to meet the

challenges of a post-pandemic world. The last section showcases how universities implement preparedness measures to minimize the detrimental effects of any future global health crisis.

Research Method

This paper examines how the higher education sector has collaborated with national governments and international organizations to respond to COVID-19. This research is an exploratory analysis of the implication of COVID-19 on university organizations and governance.

Our research is based on a preliminary scan of various sources, including articles, academic papers, reviews, blogs, seminars, surveys and online discussion forums. Furthermore, the research presented in this paper is an extension of the work we have done with the *Institut de la Francophonie pour la Gouvernance Universitaire* (IFGU). This collaboration has produced several testimonials of academic professionals focusing their discussions on university governance dynamics in times of crisis. These testimonials derive from a compilation of video clips and reference guides which are incorporated throughout the paper.

Six areas of university governance are studied: pedagogical activities, academic research, university support for students, international mobilization, university management and pandemic preparedness.

I. Implications on pedagogical activities

Since the implementation of social distancing practices, universities have had to move to online teaching forums. Since March 2020, 150 countries have issued nationwide closures of educational institutions, subsequently impacting over 80% of the world's student population (Sahu, 2020, p.7542). As such, nearing the end of the 2020 winter semester, universities worldwide had to devise response plans that allowed their students to culminate their studies. In a matter of approximately a week (in most cases), universities coordinated with professors, students, administrative staff, and especially their information and technology staff to move courses online and subsequently conclude their academic year. Professors and students had to learn how to utilize Learning Management Systems (such as Moodle, Blackboard, Brightspace

and others) and distance learning communication software (like Zoom, Adobe Connect, Skype and Teams, to name a few). Further changes include altering forms of evaluation, adjusting curriculum and finding alternative methods of student engagement in a virtual setting.

In most cases, the transition has not been easy. Students have continuously voiced their preference for traditional in-class learning practices. In a survey executed by Niche.com in April 2020, 14,000 American students (across the United States) were polled, and it was found that “roughly two-thirds of all college and graduate students said [that] online classes aren’t as effective as in-person instruction” (Dickler, 2020, n.p.). This general dislike of the e-learning process even became a factor in whether students would continue their studies during the pandemic. 70% of US students polled stated that their institution’s response to the pandemic would affect their decision to enroll in the following academic year (Patch, 2020). This emphasis illustrates the importance of adequate university planning and management, especially regarding the quality of online courses.

Moreover, students and university personnel have had to make significant adjustments. They are learning to use online mediums and adapt to new participation methods, class interaction, lecturing practices, and student-professor communication. Students and professors have been specifically concerned with adjusting to new forms of course assessments. On the one hand, professors have struggled with distributing final exams while maintaining the quality of class material and securing the institution’s academic integrity. Furthermore, students with limited access to the Internet have been disadvantaged during online tests. Their grade point averages (GPAs) were negatively affected by the new evaluation system (Sahu, 2020).

The quick changeover to online-based learning has showcased the significant inequalities in universities’ resilience around the world. It has highlighted which institutions were equipped with the technological foundation and organizational capacity to transition to e-learning rapidly in a crisis. It also demonstrated the lack of uniformity when it comes to professors and students’ technical competence. It has highlighted that not all professors and students can transition quickly to an online learning model. This fact stresses the importance of technical capacity building among professors and students alike.

However, even though the changeover from in-person to online learning has been challenging, academic institutions have also found several benefits to this teaching method. Notably, the transition to online learning has illustrated some of the strengths and weaknesses of university preparedness. It has demonstrated the versatility and adaptability of administrative staff, professors, as well as library administrators. It has forced universities to expand access to online resources like books, databases, articles, lecture material and study guides. Additionally, it has made universities aware of the utmost importance of student's access to the Internet and personal computers (i.e. laptops) as a factor of resilience.

Classes being moved to an online forum have also exhibited the convenience of e-learning. Although most universities before COVID-19 already offered (albeit on a smaller scale) online courses, the quick expansion of distance learning has incremented the possibilities of educational activities for post-secondary education. Most universities realized that online learning could assist in the diversification of their student population, mainly because e-courses enable learning for more students at a potentially lower expense. Students who can effectively learn from a distance do not incur the costs of daily transportation, student housing or meal plans. Similarly, online learning allows students who live off-campus to save time by not having to commute. This favours students who previously deferred on pursuing their higher education at a particular institution due to the inconvenience of distance.

E-learning's capacity for cutting costs is recognized by universities and their students and regional and national governments. For instance, in the province of Ontario, supporters of Premier Doug Ford are citing the success of online learning amongst universities like Harvard to justify mandatory e-learning in secondary schools, a ploy to cut expenses in the education sector (Murphy, 2020). This is putting additional pressure on universities to increase the level of remote learning activities permanently. This pressure is supported by the private sector, in which educational technology corporations are advocating for the permanency of the online transition for apparent reasons (Murphy, 2020).

Despite this conjoined advocacy for e-learning, universities recognize that not all programs are conducive to electronic instruction. Accordingly, as they prepare for the new realities of a post-pandemic world, many consider the implementation of a hybrid model:

“The current experiment with online teaching is providing universities with real-time data about which aspects of their courses can be substituted, which can be complemented or augmented, and which can’t be replaced by the digital medium. They must start determining the varying degrees of face-to-face, real-time virtual, and asynchronous-virtual experiences required for each course” (Govindarajan & Srivastava, 2020, n.p.).

At the very least, we can say is that the eruption of COVID-19 has profoundly accelerated technology advancements at the post-secondary level. The hope for universities moving forward should be to make learning for students as efficient as possible by maintaining some of the advantages of online/distance learning. A hybrid model of “online and in-person instruction will expand consumer choice and preserve the core functions of the university, while streamlining those features that have outlived their purpose” (Schrager, 2020, n.p.).

In the medium and long term, especially as most universities have not fully re-opened their facilities, it is only logical that they will continue to engage in online learning practices. Even once universities begin to function at a relatively normal capacity, the practicality of e-learning will remain and become a more permanent and prioritized aspect of the higher education experience. As stated by the founder and managing partner of the Institute of High Learning (IHL), an educational consulting firm, Maysoun Bydon, “despite the clamor and the complaints about it, remote learning is going to be here to stay” (Dickler, 2020, n.p.). We share this opinion with Bydon, as we can expect that the pandemic will permanently alter pedagogical practices making room for a hybrid learning model.

II. Implications on academic research activities

University research activities have been severely affected by the coronavirus epidemic. Certain areas of research are having more difficulties than others continuing their work. In the natural sciences field, the temporary closure of research laboratories and the limited access to work

equipment has virtually stalled research activities in this area for at least a specific period. In contrast, professors and researchers in the social sciences and humanities have not been as disturbed by the situation; some have continued their work at a distance (Alexander, 2020).

Researchers are also finding it challenging to balance their professional responsibilities with their personal obligations. The separation between home and work life is no longer as clear-cut as before (before the pandemic), as researchers are currently working from home. This is particularly difficult for researchers, primarily women, that must care for children (also learning at a distance) or other family members. In an article by the University of Lethbridge, Dr. Wieden claims that “the current structure of the academic system-funding, publishing incentive and career options-disadvantages parents and women in particular” (University Affairs-Affaires Universitaires, 2020, n.p.). This is consequently adding more stress on female researchers as they find it more challenging to make time to work while at home. For instance, the University of Ottawa conducted several surveys on their professional staff (i.e. professors and librarians) and found that “there is a relationship between being a parent or having to take care of family members (parents) and stress levels in terms of performing research and professional duties” (Association of Professors University of Ottawa, 2020, p.1). This is because women and parents are presently unable to enjoy the benefits of daycare or the free time in-school teaching provides them. Instead, they now have to juggle homeschooling, work, cooking, cleaning, running errands and constant childcare. Overall, the current global crisis is serving to intensify an “already existing divide between parenting researchers and their peers without such obligations” (University Affairs-Affaires Universitaires, 2020, n.p.). In the future, this will be detrimental to the recruiting process while making it more challenging to retain researchers.

Research activities are also affected in regards to how colleagues interact with one another. Social distancing practices have alluded to the fact that researchers can limit their travelling locally and abroad by holding seminars, conferences, workshops, events, and online meetings. Using online forums for academic interaction simultaneously limits costs and saves time. This allows researchers to share their findings with their colleagues while also expanding their

networking capabilities. In turn, it has forced universities to emphasize knowledge mobilization and magnify their target audience for their public events.

University research has proven to be an essential contributor to combating the COVID-19 pandemic. Since the start of the pandemic, the World Health Organization (WHO) encouraged universities to incentivize and accelerate “the evaluation of investigational therapeutics and vaccines” (World Health Organization, 2020, n.p.). The WHO recommends that universities invest in enhancing their research equipment and resources to facilitate the study of COVID-19 and, more importantly, expedite the elaboration of vaccines. As such, moving forward, universities are looking to expand their research departments primarily in the areas of health, climate change, policy, business and economic sustainability (Alexander, 2020). These areas are of particular interest as they directly address the pandemic's most pressing government concerns: developing vaccines, generating/implementing government pandemic preparedness plans, and rebuilding/transforming the economy.

On the other hand, a significant drawback to university research has been the limitation in international mobility. Researchers have been stalled when it comes to conducting any field research that requires overseas travel. As a result, many research projects are temporarily in a state of limbo, in which they are unsure if and when they will be able to resume. The inability to travel abroad is not entirely limiting university research from being performed. However, it will determine the type of possible field research performed and how it is conducted in the long term.

With countries around the world dealing with the pandemic in diverse ways and being at different stages of recovery, coalitions between institutions are also being affected, mainly regarding the allocation of funds. Institutions in the developed North that partner with countries in the developing South are no longer in the same financial situation (Aarts, 2020). Due to the financial repercussions that the coronavirus has had on economies worldwide, universities are struggling. In some countries like Canada, funding programs have been developed to subsidize some of the researchers' financial strain. For instance, the Canadian Institutes of Health Research has issued various grants to finance research for the rapid response to the coronavirus pandemic (Government of Canada-Funding Decision Notifications, 2020). In backing research involving the

pandemic, the interest of third-party and government institutions represents a new niche of investigation where funding is more readily available. Nevertheless, this availability of funds is limited to COVID-19 and consequently leaves researchers in other areas worried about where their funding (future or otherwise) will come from.

Consequently, in planning for the future, universities are calling for increased government support. They seek the government's assistance in backing institutions suffering from the loss of revenue, subsidizing research and aiding in the transition to make online learning resources more widely available. Furthermore, many universities, such as those in the UK, advocated creating a task force for the sustainability of research; they point to how vital university-led research has been to the response of COVID-19 (Time Higher Education, 2020).

Overall, travel restrictions, uncertainty regarding research funding and the global economic recession have all become obstacles for joint research projects, conferences and intercontinental courses—barriers that are likely to continue in the foreseeable future.

III. Implications on support for students and the university community

One of the biggest concerns for universities during the pandemic has been making student assistive programs consistently available. Universities have had to work hard to maintain student programs such as mental health services, mentorship, career counselling, academic services, library resources, housing services and financial assistance. Some students have found it challenging to deal with the stress of distance learning, being separated from family members, being unable to return home (primarily international or out of town students), not being able to secure summer employment, limiting their ability to save for tuition, and simply dealing with everyday life. The strain of the pandemic has caused an upsurge in university admission deferrals and drop-out rates in many universities, especially from international students (Hall, 2020). Additionally, students scheduled to graduate during the pandemic are undergoing significant stress as “they are experiencing major interruptions in teaching and assessment in the final part of their studies” (Sahu, 2020, p. 7543). This has caused some students to suspend their

graduation plans and even rethink their future career paths as they recognize the economic impact COVID-19 has on the global financial market (Sahu, 2020).

Universities' need to ensure their students' mental wellness has ironically put increased pressure/stress on administrative staff, professors, teaching assistants (TAs) and librarians to perform at an overtly high level while under the constraints of social distancing. Through a survey conducted by the Association of Professors of the University of Ottawa (APUO), it was found that "approximately 75% of members were experiencing moderate to extreme stress in terms of teaching (professors)/professional duties (librarians) and conducting research and creation" during the early phase of the pandemic (Association of Professors University of Ottawa, 2020, p.1)¹. This illustrates the importance of providing not only students but university personnel (at all levels) with adequate support and the tools needed to meet the challenges of the new teaching model. University employees were feeling the strain of heavier workloads, balancing their work and home lives, addressing their health concerns, becoming familiar with new technologies and at times receiving unclear instructions from the administration. Hence, to minimize this stress, increased capacity building and university staff training programs were critical to upholding academic standards.

Furthermore, it was essential for universities to have a clear communication channel instituted, to adequately implement a new administrative normal early on during the pandemic. As the former president of Tulane University, Scott S. Cowen, discusses concerning his experience with university closures post-Hurricane Katrina, "regular, transparent communications reassure the campus community that 'you've got a grip on the situation and you're managing it as well as you can'" (Field, 2020, n.p.). In other words, having a consistent and clear line of communication minimizes the feeling of uncertainty within the university community and promotes a sense of unity. Thus, strong leadership from university leaders is of vital importance. Academic leaders are needed to support students, while administrative leaders are required to design and implement a plan of action (Fernandez & Shaw, 2020).

¹ The results of the survey conducted by the APUO are based on a participation rate in which N=755 respondents.

Regarding tuition and university fees, students have become increasingly concerned about paying full costs for receiving an online/distance learning educational experience instead of a more conventional one. Especially since many summer internship programs, jobs and co-op opportunities were cancelled or simply unavailable due to the socio-economic closures. Many students petitioned their universities to reduce tuition and university fees to reflect online courses' new reality. Students at the University of Calgary were lobbying for a reduction in costs citing that the quality of online learning is not the same as in-person classes:

“It’s obviously not the same quality, and for the university to not really give much empathy to the students, especially during a worldwide pandemic...I feel like I’m being exploited, to be honest” (Braat & Patterson, 2020, n.p.).

Apart from the change in learning structure from in-person to online, students argued that universities should reduce university fees as they no longer have full access to libraries, gyms, student services, sports, sororities, clubs, housing, the cafeteria and all other extracurricular activities. Due to the abrupt interruption of classes, some universities even faced requests for university refunds. For instance, in Canada’s Province of Quebec, students from 15 universities filed a collective class action lawsuit against their institutions, requesting a partial refund of tuition costs (Drimonis, 2020). In response, some universities have sought to partially reduce university fees for activities no longer available due to social distancing. For instance, “there has been a 50% reduction in fees for the athletics and recreation center, simply because most of the activities will only be available online” (Feireisen, 2020, n.p.). However, this reduction does not circumvent students’ overall costs. As stated by the Vice-President of Academic Affairs for the McGill University Student Association, besides the 50% reduction in athletic fees, all the overhead and tuition fees are the same, if not higher, than last year (Feireisen, 2020). This illustrates the financial strain that both students and institutions are currently facing. To minimize the economic pressure placed on students, some governments reduced or temporarily halted student loans’ accumulation of interests. For instance, Quebec's provincial government declared that the student loan repayment was deferred for six months as a measure to assist this year’s graduates (Radio-Canada, 2020, n.p.).

During the 2020 Fall semester, most universities in Canada and the US have decided that most of their classes would remain online. In-person courses are limited to those requiring in-person interaction, such as labs, and this will continue until the pandemic is under control. Minimizing the interaction between students to minimize an outbreak has been the norm for almost all institutions. This transition to distance learning has put a greater responsibility on students. They have had to ensure that they have the adequate technology/resources and overall discipline to work from home.

It is vital that while developing hybrid models of education, universities also rethink and adapt the services they are providing to their students. They must find a way to supplement their closed facilities and uphold the quality of their class instruction, so students feel they are getting what they pay for.

IV. Implications on managing mobility and international activities

The closure of international borders led universities to lose a large share of international student enrollment, one of their most significant assets. For universities losing international students, the revenue they contribute through their tuition, fees and housing payments is expected to represent a substantial financial loss. For example, a large proportion of American universities' overall revenue is heavily dependent on the high fees international students pay (Hall, 2020). But since the start of the pandemic, international students have returned to their countries of origin indeterminately. While most students might have decided to culminate their semester at a distance, the future is unclear. Suppose the borders remain closed and travel continues to be limited between countries. In that case, it is unlikely that the same number of international students that left at the beginning of COVID-19 will return when the pandemic has subsided. The Vice-Rector for Teaching and Research at the Université de Moncton (New Brunswick, Canada), Gilles Roy, estimates that for his institution, the decline of international students will represent a financial loss approximately of between two and a half and three million dollars in 2020-21 (LeBlanc, 2020).

Besides, many potential new students have reconsidered whether or not to accept international university offers in fear that they will not be able to travel due to the closure of borders or student visa delays by respective embassies. The financial strain resulting from this loss is causing smaller institutions to experiment with financial problems and putting other more prominent universities in a delicate economic situation (Hall, 2020). Some countries like the US even considered removing international students from the country if they are enrolled in a university transitioning to online-only education in September 2020 (Alvarez & Shoichet, 2020). The previous Trump administration eventually opted against this order as it would have made other countries more appealing to international students (Gordon, 2020). In contradiction to the US, Canada implemented measures to facilitate the immigration process for international students. Notably, they are facilitating work permits for students after graduation (Gordon, 2020). This competition for international students, although not new, has become more intense since the COVID-19 outbreak.

Moreover, international mobility constraints are also putting an indefinite end to international exchange programs, internships and guest professors/lecturers. This, in turn, is affecting the appeal and prestige some institutions represent for students and professors.

Looking to the long-term, universities need to find ways to supplement the fiscal loss of international students as, presumably, this will remain an issue in the future. This means looking to becoming more competitive on a national level to attract a higher percentage of local enrollment. This can be done by offering more scholarships/bursaries and reevaluating how online learning can be extended to facilitate learning to a broader array of students (chiefly low-income students). Further, to retain at least a proportion of their international student base, universities need to provide this sector of students with increased assistance. They must provide support programs that aid international students in their visa applications to help downplay the stress associated with immigration procedures. Simultaneously, the fortification of e-learning platforms is crucial so that international students can continue their studies overseas.

V. Implications on university organization and governance

University governance has changed tremendously during the coronavirus epidemic, especially regarding the following: administrative practices, the reliance on technology, the way meetings occur, and telework policies and procedures.

As has been continuously mentioned throughout this paper, COVID-19 has forced universities to re-examine how they function. Moving everything online has tested the versatility of university personnel while at the same time shining a light on their level of technological capacitation or lack thereof:

“academic leadership hastily organized workshops to familiarize faculty with modern remote digital teaching and learning tools, which have advanced considerably in sophistication and effectiveness” (Fernandez & Shaw, 2020, p.40).

Departments such as computer engineering and technical assistance have now become the backbone of universities. Universities are now allocating more time, resources and personnel to strengthening their technological and e-learning capacity-building. We can expect this trend will continue in the medium and long term. Post-secondary institutions have a greater interest now to ensure that their administrative staff, professors and librarians are all adequately fluent in the use of online forums and have access to the resources they need to fulfill their respective roles (inclusively from home if necessary).

Furthermore, the coronavirus phenomenon has impacted universities financially. The pandemic has caused a global economic recession which has consequently spilled over into the education sector. COVID-19 has led to severe financial instability among post-secondary institutions (Ozili & Arun, 2020). Apart from admission deferrals, loss of international students, and a decrease in undergraduate enrolment, universities have also seen an upsurge in costs. Universities currently have to invest in new technologies for online learning, provide more significant subsidization for research efforts, minimize university fees, assume higher sanitation costs, and supplement partial refunds or economic support for vulnerable students. As a result, colleges and universities in the US were downgraded from ‘stable’ to ‘negative’ by Moody, a credit rating agency, due to

poor operating performances and an inability to adjust to the economic and academic changes being brought forth by the pandemic (Ozili & Arun, 2020).

Moving forward, universities will need to balance their budgets while still allotting funds for innovative measures in dealing with COVID-19. Further, looking towards the future, universities need to: reinforce their training programs for electronic capacitation, allocate additional funds for the acquisition of advanced technologies and develop more efficient online tools for courses, meetings, conferences and think tanks.

VI. Pandemic preparedness plans

Pandemic preparedness plans are going to be a vital component of any re-opening plan for universities, "face-to-face schooling is constructed as a specific threat from which the communities must be protected, and emergency eLearning is the security measure proposed to protect the community" (Murphy, 2020, p.499). As a result, universities will need to continue to work with health officials to ensure all necessary safety precautions continue to be followed.

The rise of COVID-19 made it clear that some universities were more prepared than others to meet the challenges of transitioning to online learning. Primarily in dealing with evacuating campuses, recalling students and professors aboard, issuing refunds, providing more extensive mental health care services, disinfecting campus buildings and catering to the remaining students and personnel on-site. However, the reality is that all universities would benefit from some revision. Specifically, institutions that had a plan need to alter them under the strengths and vulnerabilities that have become evident since the pandemic. Comparatively, universities that did not have a preparedness plan before the crisis need to create one. The arrival of the coronavirus illustrated it is essential for all institutions to have a plan of action in case of a health crisis.

For instance, the University of Guelph, as of 2019, has revised its preparedness plan that heavily details the course of action the university must take in case of a disease outbreak. Their preparedness plan highlights a six-phase process divided into the following stages: the inter-pandemic period, the pandemic alert period, and the pandemic period (University of Guelph,

Pandemic Plan 2019-2020). In the various phases, the plan focuses on the roles of administrative staff, university officials, professors, students and parents. Specifically, it details how infected (or presumably infected) people should proceed to minimize the spread of the virus. It emphasizes the importance of self-isolation both at home and on campus. Further, it discusses the university's procedures for closure and the precautions that need to be taken during the re-opening process. Their plan stresses the importance of sanitation, isolation, distance learning and reporting infection.

From the University of Guelph's plan, other institutions can learn that any preparedness plan needs to be based on a three-step process, in which universities will plan for: 1) how to react to any future pandemic; 2) how to minimize the disruption of everyday functions to continue essential operations and 3) how to safely resume operations once the pandemic is over.

Comparatively to the University of Guelph, universities in China are issuing preparedness plans that focus on institutions' capacity to provide their communities with protective medical equipment such as medical face masks. In addition, to having access to hand sanitation and making COVID-19 testing regularly available on-site (Wang, Cheng, Yue & McAleer, 2020). Furthermore, upon re-opening, Chinese universities are seeking to manage the risk of infection through "alumni resource collection, medical rescue and emergency management, mental health maintenance, control of staff mobility, and innovation in online education models" (Wang, Cheng, Yue & McAleer, 2020, p.36). Overall, both these case studies illustrate that the proper formulation and implementation of preparedness plans will be universities' primary means of ensuring their future longevity.

Therefore, institutions that were not as prepared as they initially believed need to make the necessary corrections so that they are not faced with the same obstacles in the future. The revision of pandemic preparedness will make any future transition to online learning a more automated process. Most importantly, it will aid in controlling the spread of the virus within the university community.

Conclusion

It is safe to assume that COVID-19 has changed the world. The way people interact with one another, how they work and how they learn. As such, universities worldwide need to realize and adapt to the fact that teaching practices will never completely return to the previous model.

This paper has examined the significant changes universities have had to adjust to due to the global pandemic. It has illustrated how some of the short-term challenges faced by higher learning institutions will have prolonged effects on the way universities operate, primarily pedagogical activities, academic research, university support for students, managing international mobilization, university management and pandemic preparedness.

From this analysis, it is evident that the global crisis has imposed several changes on university governance. Some of these changes include: transitioning to online learning, making university services electronically available, reworking the allocation of funds, how students, professors and colleagues interact and how research is conducted. All these alterations in how universities operate allude to a new reality for universities. At the very least, it is hard to think that even once the pandemic ends that universities will completely revert to their former modus operandi. On the contrary, it seems that these changes will lead to long-term revised institutional management and operations.

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