



Examining the impact of COVID-19 on higher education in Mogadishu

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Summary

Soon after the first few cases of COVID-19 were confirmed in Somalia, schools and higher education institutions were forced to close down their campuses in a bid to reduce infections. Universities explored online teaching as an alternative approach to continue teaching and learning. This governance brief explores how COVID-19 impacted the higher education sector in Mogadishu. The brief puts special emphasis on universities' shift to online instruction; how the teaching of arts, social science as well as science, technology, engineering, and maths (STEM) disciplines are affected; issues around digital divides; financial hardships of universities; online teaching challenges; and exams integrity. The paper concludes with policy considerations including universities to invest in Edtech; observe exam integrity; and to look for other sources to reduce dependence on students' tuition fees and maintain operations.

About Somali Public Agenda

Somali Public Agenda is a non-profit public policy and administration research organization based in Mogadishu. Its aim is to advance understanding and improvement of public administration and public services in Somalia through evidence-based research and analysis.

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Introduction

Somalia has been impacted significantly by the COVID-19 pandemic as soon as it reached its shores. The virus has further complicated the conditions of a country already affected by an ailing health system. Overall, there is a lack of effective government institutions and financial resources necessary for fighting the virus.

Following the first reported cases of the virus on 16 March, the federal government has taken measures to curtail the outbreak. The first of these measures was to suspend schools and universities as they could become potential hotspots for the outbreak. The country's Prime Minister Hassan Ali Khairre proclaimed on the midnight of 18th March 2020 a fortnight's suspension of the educational institutions, and a need to assess the developing situation. Schools and universities heeded the directive, but the cases kept increasing steadily.

On the heels of this development, the federal Minister of Education, Culture and Higher Education held a meeting on the 8th April 2020 with the leadership of the learning institutions – school umbrellas and universities – and federal and states' education ministers to decide what course of action would be taken. The minister came out with a [statement](#) in which he stipulated that schools would remain closed and the final exams for non-12th grade students would be cancelled. He also ordered school management to evaluate the students based on the results they gained in the midterm exams. Moreover, the national exam for school leavers was deferred in case the situation turns out normal.

Embracing virtual learning platforms

After the initial two weeks' closure of schools and universities, the transmission of the virus has soared, wearing thin the hope that students would be able to resume studies on campuses. The leadership of universities was compelled to come up with innovative solutions that could adapt to the crisis.

Universities resorted to alternative online learning platforms, which have become one of only ways to deal with these unprecedented circumstances. This is similar to steps taken by learning institutions all over the world. The universities previously relied solely on traditional physical classes to deliver their programs. Therefore, the online learning represents a new experience and venture for universities in Somalia. However, most African countries are in the same position, as online teaching is rare on the continent for reasons related to internet connectivity, high costs of internet data, and poverty.

The ICT infrastructure of Somalia's universities is either weak or non-existent on the account of a lack of investment and lack of government support for the higher education. Universities in the country prioritize their resources towards recurring operations and payment of staff. There is also a lack of subsidies from internal and external sources to embed ICT infrastructure in the sector. This presented an onerous challenge to the resource and skills-strapped universities when online learning became the only practical option and needed to be embraced quickly.

The different universities devised and/or adopted varying online learning platforms according to their available resources and their tech support staff. As such, they had different opportunities and constraints to overcome the dilemma presented by COVID-19. Universities mostly utilized three online meeting platforms namely Meet Google, Zoom and another platform designed by Somali Research and Education Network (SomaliREN), a non-profit higher education support group, to help its 20 member institutions.

Zoom meeting platform is the most commonly used online platform among universities because of its free-use availability. However, the duration of the session lasts for 40 minutes only, requiring classes to restart after this period. This disrupts the smooth running of the lecture and can only be avoided if a subscription of USD 15 per account is paid every month. This would obligate universities to subscribe dozens of accounts for the numbers of classes open and that will cost dearly to the

already financially challenged institutions. On the other hand, Meet Google and the SomaliREN platforms are second to Zoom meeting, but they stand out for being free from subscription requirement and time limit disruptions during the lecture hours.

This unprecedented swift switch to online learning was accompanied by various challenges due to unpreparedness of the institutions, teaching materials, faculty members and student population. Firstly, none of the universities of Somalia have had online teaching programs, previously, restricting themselves to traditional in-person teaching and learning mode. Therefore, there were no existing pedagogy-specific materials designed for this purpose. Secondly, lecturers are not pedagogically trained to deliver their lectures through online teaching and learning spaces. This made their job quite difficult and demanding because virtual and real learning spaces demand different approaches, teaching materials, teaching aids and skills. Thirdly, a significant number of faculty members lack digital technology skills, meaning that they don't deal with laptops and accompanying tools and gadgets that facilitate the teaching. To deal with this insurmountable difficulty, university administrations have made interventions through video recording lecturer's sessions before the scheduled time while using whiteboard and sharing the lecture with the students via their online platforms.

STEM disciplines hit hard

Most Somalia universities offer STEM (Science, Technology, Engineering and Mathematics) programs to the students who can afford to pay the tuition fees. STEM programs represent lifeblood for universities to underpin their maintenance in the uncertain higher education industry. Moving to remote learning has exposed the weakness of the neglected STEM programs more than ever, which are supposed to offer solutions to these uncertain circumstances. Lecturers of these programs have scrambled to deal with the vacuum that resulted from switching to virtual classes. In general, they lacked the tutorials and tools available to their peers in other countries. They were left to their own devices and to use ingenuity and skills in helping their struggling students.

Disengaged from the whiteboard that previously helped them in simplifying and untangling the numerical problems, mathematics and physics lecturers, in particular, had to revert to hand-written papers – demonstrating how a problem is solved or where a formula is derived – and posting it on the platform because the tools used don't have features that satisfy these needs within them.

In a similar fashion, health science and engineering lecturers have grappled with the lack of demonstration models used in parallel with theoretical classes to give clear picture to the students on the topic being discussed. They have had to substitute with demonstrations from YouTube, if (any) can be found. Usually, students of STEM courses beginning from the second year have two to three hours of each core course devoted to time in their respective labs. This allows them get hands-on experience and link the theoretical themes taught to real life. Unfortunately, they have missed this opportunity this semester and instead rely on textbooks.

Due to disruptions resulting from COVID-19, students pursuing undergraduate laboratory degrees are among the hardest hit students as their lab hours halted. These previously accounted for up to fifty percent of their semester load. Also, clerkship and internship for medicine students, surveying for engineering students and field visits for Social Work students have come to a standstill as

part of the national attempts to arrest the spread of the Coronavirus contagion.

The negative impacts of the Coronavirus on these disciplines and students alike are far-reaching. It hampered the smooth completion of the syllabuses including practical sessions, which are integral parts of such courses. It has diminished the morale of the students pursuing these demanding disciplines. Certainly, it will precipitate a serious awakening for universities over the debilitated state of their overlooked and under-resourced services. This should encourage them to reorient their strategies, priorities and policies; and allocate sufficient resources to the tools, technologies and digital libraries that are necessities in the 21st-century education environment.

Digital divide

The outbreak of the novel Coronavirus has [aggravated](#) the already widening socio-economic inequalities existing within societies and among haves and have-nots. It tightened the screws on communities living in grinding poverty and sustaining themselves on a dollar a day. The shutdown of their subsistence means pushed them indoors involuntarily. This grim situation has become apparent on the lower income countries' societies, including Somalia, where seven in ten live in poverty (Pape & Karamba, 2019).

Switching to online platforms had highlighted the reality of the 'digital divide', which according to Turianskyi (2020), refers to the uneven access to/distribution of Information and Communication Technologies (ICT) in societies. This also affects the student populations of different universities and is one dimension of deepening socio-economic inequality. This has taken away students from poor backgrounds the opportunity to access online classes. It has also slowed down their educational achievement due to their lack of internet access, poor internet connectivity, exorbitant costs of internet bandwidth, electricity and/or unreliable electricity, lack of smart phones and laptops. This represents a great divide among students who should be equals on-campus, putting those from poorer backgrounds in a disadvantageous position. However, this disparity is not unique to Somalia, and it is common in sub-Saharan Africa where 90 percent of school aged doesn't have a household computer and where 82 percent are offline (United Nations, 2020).

According to Bassett & Arnhold (2020), Somalia ranks the lowest among its counterparts in Africa in terms of internet penetration, reaching 10% of the population. Although students in Somali cities may include a group with higher levels of internet access, it is evident that many students face difficulties in accessing online education as they don't have computers/smart phones or internet connectivity that would give them access to virtual classes.

Most of the student population possesses smart phones – not laptops –, but non-negligible numbers of poorer students do not have this luxury item. If they do have smartphones, then many poor students can't afford to pay for the daily internet bundles owing to the cost of per gigabyte. For instance, 1 GB of internet data costs a dollar, which lasts only for twenty-four hours. However, Somalia has some of the cheapest mobile data costs in Africa and the world. The internet cost is a burden on poorer students because they are required to stay online roughly three-to-five hours per day, depending on the program pursued. It induces them to look for alternatives such as to go to relative or friend's houses with Wi-Fi to get access to classes. It is, however, commendable that some internet service providers offered students daily slightly cheaper packages responding to the increasing demand of student population to internet access. But still students find difficulties in paying the internet bundles constantly as the financial strain on their families worsened due to reductions in local incomes and international remittances.

A plethora of other inhibiting factors lies in the way of the financially strained students gaining equal access to remote learning. Poorer students who live at the outer edges of Mogadishu experience poor internet network, unstable mobile connections and are sometimes off-grid because giant electric suppliers don't reach these lower population density areas.

Additionally, those who depend on their mobile to get access to the online classes to encounter constant disconnection from the class owing to the incoming calls causing disruption and distraction. More wealthy students have far fewer problems using a laptop on Wi-Fi internet, and they are able to smoothly and comfortably follow lectures without missing anything. Compared to smartphones, laptops, in general, have better functionality for following lectures and undertaking independent study.

Owing to these digital divides, internet-mediated learning seems favored towards well-off students and strikingly disadvantages against their poorer counterparts who were previously burdened by universities' tuition fees and other miscellaneous costs like bus fares and copying textbooks. This brings negative consequences on the academic achievement of this disadvantaged cohort and may lead to dropouts.

Financial hardships

The coronavirus pandemic has caused financial suffering for the tertiary education sector across the world, and also has not spared for Somali universities. This pandemic has worsened an already struggling education sector and saddling institutions with complex difficulties mainly stemming from the current state of the affairs of Somalia.

All universities except one – the Somali National University, the only functional public university in Mogadishu – depend primarily on student tuition fees to cover their operation costs, lecturers' salaries and staffers, rents and utilities. They have no or limited alternative resources to depend on to sustain their operations in times of crisis.

This calamity has thrown universities into uncharted waters and affected their operations. It has throttled the cash stream from often poor students who haven't been able to pay fees because of financial impacts on their families. This includes family members in the diaspora who were contributing to student fees but have been affected by the lockdowns in their respective countries.

With the plummeting of revenues, some universities in Mogadishu have introduced different austerity measures to adapt to this uncertainty induced by COVID-19. Top of these measures is pay cuts, layoffs, deferred payments and truncated course hours to save funds. Some have adopted 30% pay cuts for lecturers and other staff after students couldn't pay fees on time. Others have also laid off nonessential staff following a halt in the partial funding received from external charity organizations. The latter sector has itself suffered from the financial impacts of the pandemic after the lockdown on donors and an increased inward turn of donations: an emphasis on "charity begins at home" at this critical moment.

Consequently, the developing financial consequences of COVID-19 disproportionately affect the smaller universities with smaller student numbers and already fragile finances. These universities don't enjoy reliable and predictable funding because they primarily attract poorer students who are unable to pay the fees of the other universities but have a desire to pursue higher education through 'scholarships'. They levy a fee called other charges to disguise to these students that are paying fees, and have

the responsibility for the photocopying of textbooks for students in-house to generate revenues to help pay lecturers and other costs.

On the flip side, universities save on routine costs due to the shifting towards online instruction – e.g. in terms of fuel costs, utility expenses, refreshments for lecturers, drinking water and cleaning materials. These could partially compensate for deficits in other areas.

Strikingly, lecturers are the very first victims of the situation, as their already modest pay has been threatened by cuts and delays. Besides this, they receive disproportionate payments to the backbreaking teaching load, setting and marking exams.

Somalia universities are not alone in suffering, but those in neighboring countries and beyond are grappling with the immediate financial effects of COVID-19. They plead for urgent fiscal stimulus measures to help meet their financial obligations and sustain services for students. However, their calls have fallen on deaf ears because governments are overwhelmed by the pandemic and prioritize the few funds in their coffers (e.g. from donor countries and financial institutions) on the public health aspects of the emergency, and other types of crucial businesses in this turbulent time.

Online teaching challenges

The rapid, unprecedented and unprepared for the transition to online teaching and learning has brought immense challenges to the Somali higher education institutions, the lecturers and the students. This is similar to their peers across the world, although compounded by the fragile situation of the industry in Somalia.

Firstly, universities lacked (and still lack) effective and efficient ICT infrastructure in place that could help to embark on efficient online teaching. Moving to remote learning has been extremely difficult for universities, which already survive on scarce resources. Immediately, they adopted a ubiquitous online conference and chatting apps with a shallow training tutorial for instructors and student population to adapt and use for alternative instruction. It became apparent that significant numbers of instructors had been conveniently using only whiteboard and textbooks, not laptops. Therefore, many found it difficult adapting to the new technology. This put pressure on respective faculties to provide necessary assistance to these instructors to help uninterrupted delivery of the lectures online.

Second, of those who had laptops, some met problems in navigating the app features being used. Lack of familiarity with the webcam meant that instructors gave an unprofessional experience. For example, family members might walk into the background in revealing dress or there would be speaking while the mic is unmuted. Additionally, instructors with poor training have trouble with students annotating the textbook or PowerPoint presentation being posted with paint and also students with unmuted mic who in noisy environment cause distraction to the other students.

Third, instructors who live in cramped houses (and with extended families) have trouble delivering their lectures smoothly as the noise and screaming of the children and other people around them hamper the delivery and interrupt the completion of the planned semester scheme. Also, those who inhabit corrugated iron sheet houses (and flanked by the same type of houses) often face similar challenges or even greater noise.

Fourth, what has been lost is the personalized, lively student-lecturer interaction, enthusiasm and eye contact. This used to animate on-campus teaching and learning and served as an important vehicle for lecturers to identify students who are

actually engaged in the lessons. The shift to online teaching has rendered the teaching environment unanimated, monotonous, and characterized by one-way communication.

Fifth, moving to virtual learning loosened faculty and lecturers' control over students' behavior in terms of class attendance and participation. In effect, they transferred the responsibility to the students to self-regulate their attendance. This has led to high absenteeism among students and lack of enough interest and participation in lessons given. Sometimes, this is justified with legitimate reasons such as poor internet, electricity blackout, unstable mobile network and inability to charge internet data. At other times, the reasons are seemingly unjustifiable, according to the accounts of lecturers who spoke to Somali Public Agenda on this issue.

Finally, some students log into their respective platforms from their mobiles while doing business in markets or a restaurant and their mics transmit loud sounds around them. Lecturers observed that a proportion of students who log into the class seem online. But when the lecturer calls them to ensure they can hear and follow him/her, few respond. It appears that many are not genuinely participating but log in to have their attendance recorded whilst they do other businesses.

Exams integrity at risk

Immediately after adopting the online teaching and learning mode, the next challenge was how to administer exams. This raised critical questions of about fairness and reliability. Thus, universities have opted for online exams seizing different devices available for this purpose or one of their own to conduct mid-term and finals. This is in contrast to decisions of most universities across the world with sophisticated Edtech to postpone or cancel exams and assessments to avoid dangerous loopholes in the online exam provision.

However, Somalia private universities couldn't postpone or cancel the semester exams. The primary reason is that exams are important opportunities for universities to collect due tuition fees from unpaid students (without payment of tuition fees students are barred from sitting the exams). These fees are vital for universities to

function, and so they opted to conduct exams online. Nonetheless, this has threatened the integrity and fairness of exams because students are removed from strict faculty invigilation. This allows them to refer to their teaching materials, compare answers, and help each other in answering questions through WhatsApp groups and other chatting apps.

A few universities have tried to deter students from cheating attempts through the use of online exam tools. These require students' permission to open their camera at the very beginning of the exam, keep it on and require them to avoid receiving or making phone calls until they submit the answers. This keeps track the activities of the students, and failure to follow the procedure would lead to the nullification of the exam results. However, cheating facilitated by online mediated exams was still flagrant according to the accounts of the lecturers and students themselves. For instance, some of the students gathered at a specific home with the sole intention to work together on the courses being examined. Others formed WhatsApp groups to share the answers of the exam at hand instantly. This amounts to the degradation of the exams' integrity and fairness among students. It discourages bright, competitive and high performing students as their lazy peers will achieve the same results in unsupervised online exams.

Taking exams via online not only damaged integrity but deepened further the existing digital divide. It alienated many impoverished students from participating in the exams. Many students couldn't attend the exams due to their lack of a laptop or desktop at home. Mobile phones are not convenient tools for online exams, and there are issues with navigating the page and a lack of stable internet. Besides this, students generally encountered challenges in doing exams because of their poor typing skills and general computer illiteracy causing them to answer only half the questions or answer insufficiently in each.

Policy considerations

1. Universities should attempt to allocate a proportion of their slim resources to investing in Edtech (e.g. in learning management systems). These are indispensable in the digital era, and could facilitate teaching and learning in parallel with the traditional on-campus teaching. Such investment will also offer opportunity to a great deal of potential students who are unable to attend on-campus classes and would improve the level of preparedness for uncertain conditions and situations.

2. Universities should observe the integrity of the exams through plugging the loopholes that emerged in the new online systems. These risk universities' credibility and integrity now and in the future. If exam integrity is in question, universities should consider postponing final exams and taking exams at campuses or exploring other potential and viable alternatives

3. Internet service providers should assist university students in their part with providing low cost internet data under this circumstance to help include the underprivileged students in the remote learning.

4. In order to alleviate universities' total dependence on student population tuition fees, the Federal Government of Somalia should offer subsidies to the universities and should not restrict its funding only to the public university. Likewise, universities should look for other sources of funds aside from student fees to sustain their operations.

5. Universities should seize the opportunity offered by the pandemic in extending the scope of their operation to offer their programs online to potential students in other regions of Somalia and the region who are not able attend classes for varying reasons. Moreover, Universities should coordinate to share experiences and ideas on best practice for online learning.

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