

Introduction

As it has globally, COVID-19 has disrupted every part of the lives of people living in the East Asia and Pacific (EAP) region. The World Bank's recent regional analysis of the EAP¹ highlights the exemplary way in which the region has lifted millions of its citizens out of poverty and achieved middle-income status for its countries. However, the crisis threatens to erode the important progress EAP countries have made over the past two decades.

Parallel to economic development, the higher education sector across the region has experienced explosive growth over the past 25 years, resulting from increased school participation and a growing association between advanced education and life opportunities. In response, the higher education sector, both public and private, has expanded rapidly to accommodate the demand. In addition to local demand, universities in the EAP region are drawing many international students; some leading universities have between 26 percent (National Taiwan Normal University) and 43 percent (University of Hong Kong) international students.²

The challenge that COVID-19 poses to higher education in these countries is profound. In the past three months, many higher education systems have been compelled to take teaching and learning, along with almost all other operations, to online platforms or other modes of distance education. This has resulted in innovative strategies to cross digital divides and tackle other challenges. However, the COVID-19 pandemic will likely change the course of our thinking about how the sector can and should operate. This includes reimagining a "new normal" for the internationalization of higher education, and formalizing ways in which teaching and learning can be made more flexible. In addition to higher education, there are shorter- and longer-term implications for Technical and Vocational Education and Training (TVET) institutions. In the shorter term, TVET institutions are less likely to have appropriate digital infrastructure to support remote learning and might experience challenges in taking vocational subjects to digital platforms. In the longer term, these institutions could play an important role in realigning the labor market with skills needed to recover from the impact of the COVID-19 pandemic. Although the focus of this note is on higher education, current developments in the TVET sector are discussed in box 1.

This note takes stock of the current state of higher education systems in the EAP region and highlights some of the pressing changes, challenges, and expected consequences of the responses to the COVID-19 pandemic.

Impact and mitigation 1: teaching and learning

Some universities had an "online forward" approach to teaching and learning prior to the COVID-19 pandemic. For example, Taylor's University in Malaysia states that each of its courses has its own virtual site (similar to a learning management system), allowing online engagement relating to assessments, assignments, peer support, and communication channels with peers and lecturers. Students are kept engaged in their learning by a progress-tracking bar and by earning digital badges. In addition, students have access to a Lecture Capture System (ReWIND), containing a variety of lecture recordings, and other learning materials. Large-scale courses also use live streaming and Lightboard Video Technology to record lectures.³ Having infrastructure in place makes the transition to remote teaching and learning much easier, as the Zhejiang University in China showed (box 2).

¹ World Bank 2018.

² <https://www.statista.com/statistics/1091721/apac-leading-universities-by-international-student-share/>.

³ <https://www.thestar.com.my/news/education/2020/03/29/learning-mustnt-stop-with-covid-19>.

Countries with significant macro infrastructure in place, such as the Republic of Korea, have important advantages when it comes to online education. However, even there, concerns have been raised recently about younger learners' access to devices and the internet, and whether students and teachers have adequate skills to engage optimally with software and learning technologies. These concerns are equally relevant in university spaces.⁴ In response to these challenges, countries like Indonesia have opted for a multi-pronged approach to reach learners. Educational material and resources are broadcast via a dedicated television channel to learners from primary through to vocational education levels. Parallel to this, the government has provided a dedicated web portal with information about learning from home, partnerships with internet providers provide free access to websites for learning content, special data prices have been negotiated, web applications have been developed to support learners and teachers, live teaching platforms are available on the web, and online competitions were developed to motivate learners to study at home.⁵

Box 2. The ease of moving online when digitally adept

Zhejiang University (ZJU) in China moved more than 5,000 courses online in two weeks. The university's focus on creating a smart campus assisted in its readiness to enable such a feat. Since 2017, the "ZJU Online" project has focused on developing administrative services, online education, academic resources, information bulletins, and personal profiles. In 2018, the university began to build smart classrooms, equipped with audio recognition and interpreting technologies. This technology enabled lecturers to record video courses or live stream their classes during COVID-19.

Key points of advice from ZJU include a greater emphasis on systematic development, efficient internal/external interaction, and governance capacity.

Source:

<https://www.weforum.org/agenda/2020/03/coronavirus-china-the-challenges-of-online-learning-for-universities/>.

Not all universities have moved their teaching and learning online. In a letter to staff, the University of Papua New Guinea encouraged lecturers to be in contact with their students to update them on work that needs to be done in preparation for resuming classes. Students are also encouraged to spend their time revising work that they had already done and to read up on topics not yet covered.⁶

While some countries are cautiously starting to reopen businesses and schools, strict conditions apply. For example, only allowing seniors or students in certain courses to return first, or quarantining students before campus entry and restricting movement thereafter. Strict rules around wearing masks, submitting to body temperature tests, baggage disinfecting, and presenting digital codes to prove their health condition also apply.⁷ Universities are under tremendous pressure from government to save the academic year.⁸ Students and staff from Taiwanese universities have to adhere to a quarantine preparation checklist at home and institutions before

moving activities back to campuses. Specific conditions for airport transfers, facilities management, course delivery options, and managing instructional spaces have been developed.⁹

Impact and mitigation 2: examinations, admission, graduation

While most graduation ceremonies in the EAP region have been postponed, there are examples of innovative ways in which students can experience and celebrate graduations together (see box 3).

⁴ Price 2020.

⁵ Chabibie, M. H. 2020. .

⁶ <https://www.upng.ac.pg/>.

⁷ <https://www.thestar.com.my/news/regional/2020/04/19/universities-in-china039s-guangxi-reopen-as-epidemic-wanes>.

⁸ http://www.china.org.cn/arts/2020-04/19/content_75950097.htm.

⁹ Huey-Jen Jenny Su. 2020. Confronting COVID-19 Pandemic in Higher Education: A NCKU Experience.

Like graduations, most EAP countries that had examinations scheduled soon have opted to postpone them. In Myanmar, students requested that examinations be suspended some time before the government responded to the pandemic. The student union has criticized the Ministry of Education (MoE) and institutions for poor handling of the situation. By the end of March, there had been no communication from the MoE or universities about any follow-up plan for the examinations, including when universities are expected to reopen.¹⁰ In the Philippines, transitioning between school calendars implies that some institutions are allowed to end their calendar year earlier than the expected April 30 date. Others have been advised to extend the semester by one month. In both scenarios, institutions are expected to use flexible learning and assessment options.¹¹ Vietnamese universities are introducing flexible measures to allow final-year students a fair opportunity to graduate. Measures include having students work on their theses instead of taking alternative modules as in previous years, receiving online guidance from professors to complete their work and only taking practice tests when they return to campus, and providing students who are eligible to graduate with temporary degrees and transcripts.¹²

Box 3. Virtual graduation by remote-controlled robots

With the help of a few remote-controlled robots, tablets, and Zoom, the Business Breakthrough University in Tokyo, Japan, successfully hosted a graduation ceremony. The “Newme” robots were developed by the ANA Group and controlled by four students and a few administrative staff actually attending the ceremony. Graduates joined the ceremony via Zoom, with their faces screened on tablets positioned as faces on the graduation-gear donning robots. The ceremony included all traditional elements of graduation, but without the risk of all the people in one room together.

Source: <https://www.businessinsider.co.za/university-in-japan-used-robots-for-virtual-graduation-2020-4?r=US&IR=T>.

Another key concern is the impact of postponing final secondary school examinations and university entrance examinations on admissions, which impacts the tertiary pipeline of human capital production. In Hong Kong SAR, China, around 50,000 students take the examinations annually. There are concerns that disruptions in timing might push learners to apply to overseas universities, pursue remote alternatives at other universities, or create a bottleneck in admissions to local universities.¹³ Similarly, cancellation of the school exit examinations in Malaysia has raised concerns that this will put students at a disadvantage compared to applicants from other countries when it comes to securing limited public university spots.¹⁴ Korea has pushed back its college entrance examinations scheduled for November, as concerns persist over a possible resurgence of COVID-19.¹⁵ In Indonesia, the national secondary examinations were completely cancelled, and schools are to follow guidelines to determine whether a student should be allowed to proceed to his or her next level of education.¹⁶

Equity and infrastructure

Inequality is a major concern in the EAP region. National poverty rates in EAP countries differ widely. At the lower end of the poverty spectrum are Malaysia (0.4 percent), China (1.7 percent), and Vietnam (7 percent), while countries such as Timor-Leste (42 percent), Papua new Guinea (40 percent), and Micronesia (41 percent) show higher poverty rates.¹⁷ Digital inequalities persist, even in countries with lower economic disparities. Only three countries—Singapore, Brunei, and Malaysia—have over 80 percent internet penetration. In Indonesia, Thailand, and Cambodia, less than 60 percent of the population (56, 57, and 50 percent, respectively) has access to the internet, while around 40 percent of the Myanmar and Vietnam populations have access.¹⁸ The digital divide, however, is about more than just access to the internet. It also extends to the

¹⁰ <https://frontiermyanmar.net/en/testing-times-for-universities-as-covid-19-cases-grow>.

¹¹ <https://www.cnnphilippines.com/news/2020/4/15/college-university-end-of-school-year.html>.

¹² <https://en.vietnamplus.vn/universities-implement-different-solutions-to-ensure-timely-graduation/171440.vnp>.

¹³ <https://www.universityworldnews.com/post.php?story=20200325174758462>.

¹⁴ <https://www.malaymail.com/news/malaysia/2020/04/13/cancellation-of-matriculation-semester-ii-exams-creates-unfair-university-a/1856138>.

¹⁵ <https://www.japantimes.co.jp/news/2020/03/31/asia-pacific/south-korea-open-schools-online-reschedule-college-exam/#.XptWBegzblU>.

¹⁶ <https://indonesien.ahk.de/infothek/news/news-details/covid-19-developments-in-indonesia>.

¹⁷ World Bank 2020.

¹⁸ <https://www.channelnewsasia.com/news/commentary/coronavirus-covid-19-malaysia-indonesia-school-e-learning-online-12616944>.

reliability, speed, and affordability of internet/data access, as well as having access to electronic devices conducive to learning. Inequalities tend to intersect, with the most vulnerable often facing more than one disadvantage, thereby amplifying the impact. In Indonesia, for example, male students from rural areas tend to drop out of school to find work. Concerns are that the larger economic impact of COVID-19 on households will increase this behavior, as young people might feel obliged to contribute to the family's economic stability. The same concerns may be relevant for students enrolled in higher education.¹⁹

Box 4. Loaning devices to bridge digital inequality

With many school learners without devices to study at home, or struggling with out-of-date devices, Singapore has loaned around 12,500 laptops or tablets, as well as 1,200 internet enabling devices, to school learners. Low-income families can also apply for subsidized computers and free broadband services.

Source:

<https://www.channelnewsasia.com/news/singapore/covid19-laptops-schools-moe-education-home-based-learning-12658828>.

Most reports provide similar narratives to that of the Philippines: “Some of the schools have transitioned to online learning, but it has been challenging for students without access to internet.”²⁰ Responding to inequalities has proven difficult. For example, in mid-March 2020, the Malaysian government ordered all forms of education, including e-learning, to cease. This was ordered as an attempt to level the playing field between those with and those without appropriate access to devices and the internet. However, subsequent outcries caused the government to reconsider, and universities moved to online teaching and learning by the end of March 2020.²¹ Many institutions or governments internationally have resorted to a loan system to provide students in need with appropriate devices (see box 4).

Staffing

Technological aids, infrastructure, and access concerns, as well as the anxiety accompanying moves to online platforms, dominate reporting. Underreported though is the considerable impact that such changes have on lecturers, who need to refocus and rethink curriculums, engagement, and assessment; learn to use software and technology well enough to optimize these platforms for learning and teaching; and make sure that all their students are included and are coping. Examples of how lecturers in EAP countries are supported, how they take the initiative, and the lessons they have learned along the way, are shared in boxes 5 and 6.

Box 5. Collaborative partnerships as an outcome of COVID-19

NYU Shanghai has been engaging in around 300 courses via digital technologies. In a collective effort, the University has developed a Digital Teaching Toolkit to help others ensure high quality teaching and learning. The Toolkit website reviews a variety of technological support structures, and includes tools, instructional materials, and tips. It also includes a guide to the various digital tools and software recommended by the NYU Shanghai Library's Research and Instructional Technology Services (RITS) team, complete with their various strengths and weaknesses. The toolkit also helps professors match their preferred modes of digital instruction with appropriate technologies.

Collaborations with the private sector have also strengthened during COVID-19. Many governments have partnered with Internet service providers to provide data packages or free access to learning support websites. In Vietnam, nine national and international businesses have offered special deals to support to the government in the form of infrastructure or access to digital or educational platforms.

Source

<https://shanghai.nyu.edu/news/nyu-shanghai-makes-digital-toolkit-available-fellow-universities-going-online>
Digital Teaching Toolkit: https://wp.nyu.edu/shanghai-online_teaching/

¹⁹ <https://www.thejakartapost.com/academia/2020/04/07/covid-19-how-will-it-affect-human-capital.html>.

²⁰ CNN Philippines 2020.

²¹ <https://www.thestar.com.my/news/education/2020/03/29/learning-mustnt-stop-with-covid-19>.

Box 6. Supporting lecturers in moving online

When the Singapore Institute of Technology moved to e-learning, some lecturers already had experience in online or remote teaching, but some did not. Moving everything online required considerable preparation. According to the Institute, some of the key factors that helped the transition include:

- *A consistent, whole university approach.* Selected teaching support technologies were made available to all teaching staff and students. These key tools provided some consistency so that students were neither confused nor rushed into learning different tools.
- *Ensuring learning outcomes were uncompromised.* Alternative assessment methods were needed to assess the same learning outcomes. A policy was drafted to introduce flexibility with faster approval routes for changes that were needed.
- *Remaining student-centric.* It remains important to engage learners. Lecturers showed some innovativeness through conducting live streaming classes and using polls and quizzes to engage learners. In addition, arrangements were made for students who did not have access to a laptop to borrow one.
- *Clear, frequent communication.* It was key to understand concerns at different points in time. An initial university-wide survey was undertaken just before e-learning commenced, to inform staff of student needs and fears. A follow-up survey through student management committees two weeks after moving online enabled further tweaks to improve the experience. Communication channels were also important for staff and students to see and share each other's concerns and experiences.
- *Making training available in through a multitude of tools.* Training resources were provided to staff and students to help them make use of tools and prepare them to learn in an online environment. Academic advisers also spent time talking to students about topics such as time management, managing procrastination, and recognizing that the online learning environment could be distracting for some students.

Source: Lim, M. 2020. Educating despite the Covid-19 outbreak: lessons from Singapore.
<https://www.timeshighereducation.com/blog/educating-despite-covid-19-outbreak-lessons-singapore>.

Internationalization

The impact of COVID-19 on the internationalization of higher education is a key concern. Chinese students are the biggest contributors of international students to regions such as the United Kingdom and Australia. A survey of almost 11,000 Chinese students studying in the UK revealed that around 40 percent are undecided about whether they will return to complete their studies, while 13 percent already indicated that they do not plan to return.²² Australia faces a similar concern. With international students contributing around US\$31 billion to the national economy, universities and the government are under pressure to devise plans to keep these students. In response, several emergency adjustments to regulations were made to allow international students to stay on and work a certain number of hours per week. In addition, the Council of International Students Australia responded to students' calls for fee reductions or refunds, as well as welfare support, by making welfare packages available for those in financial need.²³ Barring a few exceptions, the majority of borders remain close for international students.

For international students heading to China, at least three of the country's top universities have cancelled entry examinations for overseas students.²⁴ This might ease the entry process and attract more potential students. Further, over 70% of prospective international students aimed at pursuing studies in the United Kingdom want to start the academic year, even if it means reverting to online courses.²⁵

²² British Council 2020.

²³ Maslen 2020.

²⁴ <https://www.universityworldnews.com/post.php?story=20200516103143843>

²⁵ <https://www.universityworldnews.com/post.php?story=20200522140411693>

Financing (student financial aid / institutional financing)

The financial implications of COVID-19 extend from immediate concerns about the welfare of students and staff to longer-term, sector-wide concerns about support needed to recover from the effects of the pandemic. Some countries are helping students affected by the pandemic. For example, in Malaysia, many students are stuck on campuses under the government's Movement Control Order. Certain institutions in Malaysia are using disaster relief funds to support students locked in on campuses,²⁶ and distributing food and other necessities to ensure their well-being.²⁷ Some institutions in Vietnam are providing scholarships to students with families most badly affected by the pandemic.²⁸ In the Philippines, institutions are considering whether they should refund student tuition fees,²⁹ while 52 Thai universities have pledged to reduce tuition fees to relieve pressure on students.³⁰

COVID-19 also poses a high risk for job losses and decreased tuition revenue. There is also the increasing possibility of long-term impacts related to future budget constraints. The increasing probability of international students not returning to their host institutions, or enrolment targets not being met because of administrative changes in school exit examinations or admission criteria, could have dire consequences, particularly on already struggling or vulnerable systems. The Malaysian private higher education system is such an example. The return of international students and meeting enrolment targets will determine whether institutions stay open and staff stay employed.³¹ Economies in the region are expected to experience slowed or even negative growth, making it likely that lower tax receipts will be available to finance government contributions to public universities as well, while sectors such as health are expected to consume higher-than-usual portions of government spending. Similarly, in Europe, the European University Association warns of significant losses in all forms of funding: public, tuition fees, research contracts, and other third-stream income, as well as European Union funding and calls for national, regional and international collaboration to face these challenges.³²

Quality assurance

Some institutions acted quickly to develop policies guiding teaching and learning, assessment, and other practices, while others already had e-learning policies in place. However, the pace at which contact courses had to be transformed into remote learning courses leaves space for questions around quality. Normally, developing online courses would require inputs from a team of experts, including academics and instructional designers. Many lecturers and students have resorted to a process of trial and error to work out how to best implement online learning during the pandemic, leading to potential short-term disruption to the learning and evaluation processes. Other challenges potentially affecting the quality of remote learning during COVID-19 include students' possible lack of self-motivation to learn independently, or a lack of training for students and staff needed to engage optimally in remote learning technologies, software, and other processes.³³

Outlook and recommendations

Many higher education institutions are grappling with the immediate challenges resulting from closures or moving to remote learning platforms. They are providing teaching and learning support (particularly for those who do not have access to devices or the internet), managing financial demands and implications of the pandemic, managing logistical arrangements related to graduations, entry examinations, year plans, and other

²⁶ <https://www.malaymail.com/news/malaysia/2020/04/13/cancellation-of-matriculation-semester-ii-exams-creates-unfair-university-a/1856138>.

²⁷ <https://www.malaymail.com/news/malaysia/2020/04/13/cancellation-of-matriculation-semester-ii-exams-creates-unfair-university-a/1856138>.

²⁸ <https://vietnamnews.vn/society/715236/universities-provide-scholarships-to-ease-burden-on-disadvantaged-students.html>.

²⁹ <https://www.rappler.com/nation/257938-ched-universities-colleges-decide-tuition-fee-refund-coronavirus>.

³⁰ <https://www.universityworldnews.com/post.php?story=20200418113853953>.

³¹ <https://www.asiasentinel.com/p/the-collapse-of-malaysian-private>.

³² **European University Association, 2020.**

³³ <https://theconversation.com/coronavirus-universities-are-shifting-classes-online-but-its-not-as-easy-as-it-sounds-133030>.

cross-sectional disruptions, while simultaneously attempting to look after the mental health of students and staff. Some positive outcomes from these responses are already emerging: countries are using multiple avenues to ensure continuation of learning; collaborations between institutions and between the private sector and institutions are expanding; and the initial uncertainty of international students seem to be moving towards a willingness to engage in different forms of international education. We are also seeing institutions getting their campuses and procedures ready for a 'new normal' to welcome staff and students back.

What we do not know yet is what the quality of teaching and learning in emergency remote learning will be. We also still have to devise ways of assessing the impact of disrupted learning on student success trajectories (that is, will we see an increase in dropout or failure rates, and will these changes in trends be more pronounced among students who are more vulnerable because of socioeconomic or other marginalizing status?) .

The World Bank's COVID-19 crisis response³⁴ identifies several longer-term challenges that the higher education sector in general could face beyond the pandemic. Those that relate directly to the EAP region include:

- *Increased or more pronounced inequalities.* Currently, the move to remote learning has already exacerbated inequalities between those with and those without access to devices, infrastructure, skills, technology, and the internet. In future, it is expected that students already experiencing socioeconomic hardships will be less likely to return to university because of increased financial and situational constraints (including family obligations, changes in personal circumstances, and support networks diminished or dismantled by campus closures).
- *Reduced public and private funding for higher education.*
- *Permanent closures of programs and institutions.* Rapid expansion of higher education in the EAP region resulted in the establishment of many smaller and private institutions, both of which depend heavily on tuition fees for revenue. The expected reduction in funds to support the sector could lead to the closure of such institutions.
- *Reduced mobility in higher education.* A shift in demand for local, international, and remote programs is expected, which will have an impact on different aspects of the sector, including competition for placements.
- *Quality issues.* Concerns about the quality of remote learning, particularly if not guided by policy and accountability measures, might lead to an increase in graduate unemployment.
- *Less collaborative, international research.* This would also imply less research funding and accompanying international recognition.

In response to these and other challenges, the following are recommended.

Strategic directions for institutions:

1. *Diversify funding.* Seek diversification of financing sources, including working with private sector partners, foundations, multilaterals, and international organizations.
2. *Develop infrastructure.* Tertiary education systems could emerge stronger if they take this opportunity to develop digital infrastructure toward a more agile and flexible system. This could take place through the strategic allocation of institutional funding to expand and update technological infrastructure for digital pedagogy, investing in learning science, and training of faculty members. Institutions, staff, and students who are equipped with good infrastructure, resources, and skills, and who were already engaged in a culture of using technology for teaching and learning, had a much easier transition to remote learning. Investing in collaborations known as National Research and Education Networks (NRENs) with infrastructure providers could also have widespread benefits.

³⁴ <http://pubdocs.worldbank.org/en/621991586463915490/WB-Tertiary-Ed-and-Covid-19-Crisis-for-public-use-April-9.pdf>.

3. *Increase collaboration.* Investing in public-private partnerships could tackle many challenges related to accessing innovative technologies, infrastructure, and digital skills training.³⁵ Many organizations, including the World Bank and UNESCO, have also shared a range of resources for countries to use.³⁶ Building collaborative relationships with open universities could also guide policy and practice related to quality.
4. *Position universities as critical contributors to national priorities.* Beyond the need for specialist research, resources, and knowledge to combat COVID-19, the EAP region is often plagued by environmental challenges. Universities could be critical partners in tackling challenges affecting all sectors of society.

For policy and accountability:

5. *Develop and implement quality assurance regulations for flexible learning,* while adding aspects of accountability and transparency.
6. *Draft policies on the ethics and security of technology.* Cambodian citizens have raised concerns about a new policy allowing the government unlimited surveillance of telecommunications and control of media and social media.³⁷ Policies guiding the extent of democracy, privacy, and the rights of citizens need to guide ethical use of technologies, even during times of crisis.
7. *Implement data management and quality measures.* More data require better ways of managing data.
8. *Tackle the digital divide in policies.* Arguably the widest referenced challenge experienced in implementing remote learning in EAP and other regions is the digital divide. Students from poorer families, living in rural areas, or who are marginalized in other ways, are often excluded from innovations. This should be kept in mind when introducing new measures to advance flexible learning pathways. Other initiatives that could be considered to enhance equity include assessing the terms, conditions, and scale of student loans and grant programs, and greater provisioning of no-cost educational resources for institutions serving disadvantaged populations or providing dedicated additional support programs for vulnerable students.

For teaching and learning:

9. *Flexible learning pathways.* Introduce more aspects of flexible learning into regular face-to-face courses. In addition, introduce a variety of courses to complement national skills needs.
10. *Invest in low-tech innovations.* Parallel with investments in high-tech approaches to advance flexible learning, universities should also consider developing low-tech innovations. With an expected decline in government funding, compounded by potential losses of income through a decline in student fees, it is important for universities to think innovatively about implementing low-tech options, sharing technologies and resources, or even optimizing the use of existing learning management systems.
11. *Create new opportunities for national and international students* by expanding online options for potential international students and introducing virtual exchange alliances and virtual internships. Universities across the globe will have to consider how they can access the market for shorter courses, micro-credentials, or digital certifications.³⁸

References

- British Council. 2020. "HE institutions face 'battle' for Chinese students as 39 percent of applicants unsure about cancelling study plans." <https://www.britishcouncil.org/contact/press/higher-education-chinese-students-covid-report>.
- Chabibie, M. H. 2020. TV-Based Learning During Pandemic COVID-19 to Close the Gap of Connectivity. Presentation by the Center of Data and Information Technology, Ministry of Education and Culture of the Republic of Indonesia

³⁵ <https://www.weforum.org/agenda/2020/03/3-ways-coronavirus-is-reshaping-education-and-what-changes-might-be-here-to-stay/>.

³⁶For example, <https://en.unesco.org/covid19/educationresponse/solutions> and <https://www.worldbank.org/en/topic/edutech/brief/edtech-covid-19>.

³⁷ <https://thediplomat.com/2020/04/cambodias-lost-digital-opportunity-in-the-covid-19-fight/>.

³⁸ <https://www.universityworldnews.com/post.php?story=20200403133447141>.

- CNN Philippines. 2020. "School year of colleges and universities cut short by Covid-19." <https://www.cnnphilippines.com/news/2020/4/15/college-university-end-of-school-year.html>.
- European University Association. 2020. "The impact of the Covid-19 crisis on university funding in Europe. Lessons learnt from the 2008 global financial crisis" https://www.eua.eu/downloads/publications/eua%20briefing_the%20impact%20of%20the%20covid-19%20crisis%20on%20university%20funding%20in%20europe.pdf
- Huey-Jen Jenny Su. 2020. Confronting COVID-19 Pandemic in Higher Education: A NCKU Experience.
- Lim, M. 2020. "Educating despite the Covid-19 outbreak: lessons from Singapore." <https://www.timeshighereducation.com/search?e=404&search=blog%20educating%20despite%20covid%2019%20outbreak%20lessons%20singapore>.
- Maslen, G. 2020. "Virus threatens major source of universities' income." *University World News*, April 8. <https://www.universityworldnews.com/post.php?story=20200408113839929>.
- Price, S. 2020. "Teachers Grapple with Online Classes As South Korea Goes Back To School." *forbes.com*, April 10. <https://www.forbes.com/sites/steveprice/2020/04/10/teachers-grapple-with-online-classes-as-south-korea-goes-back-to-school/#417ccd21386f>.
- World Bank. 2018. "Riding the Wave. An East Asian Miracle for the 21st century." World Bank, Washington, DC. <http://documents.worldbank.org/curated/en/770241511445721465/pdf/121613-REVISED-PUBLIC-211145cmp-eProof.pdf>.
- — —. 2020. "East Asia and Pacific Poverty and Equity Brief." World Bank Group, Washington, DC, April. https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_EAP.pdf.