POLICY BRIEF

Policy Lessons from Coursera: Mitigating Education Disruptions and Job Loss

Industries with highly skilled talent, especially in technology, see higher stock returns and less disruption from COVID-19, while countries that excel in critical skills see lower income inequality. Photo credit: ADB.

Online learning initiatives fill the gap left by school and business closures and show the way forward after COVID-19.

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Introduction

The speed and scale at which the coronavirus disease (COVID-19) pandemic has disrupted education and triggered the loss of jobs are unparalleled. Lockdowns and mobility restrictions to contain the spread of the virus led to the closure of schools and businesses, affecting 1.6 billion learners, as of June 2020 (UNESCO), and 2.7 billion workers or about 81% of the world's workforce, as of April 2020 (ILO).

To help address the challenges, Coursera, one of the world's largest online learning platforms, has launched two pro bono initiatives. One, the Coursera for Campus Response Initiative gives colleges and university students access to most of Coursera's course catalog online at no cost. Two, the Coursera for Workforce Recovery Initiatives helps governments provide unemployed workers access to online courses to enable them to gain the knowledge and skills they need for upskilling and

reemployment, also at no cost. The response to the initiatives has been remarkable: it raised total enrollments to 10.3 million in 30 days, up by 644% in April 2020 from April 2019, and increased new user enrollments by 15%.

The enormous demand and appetite for online learning highlighted by Coursera's experience provide a strong basis for escalating the use of digital technologies to support education and learning outcomes amid the pandemic and beyond. Building on the momentum created by the initiatives, public and private stakeholders can maximize the benefits from these technologies by expanding further the possibilities for making them accessible to everyone.

This policy brief is based on a presentation by Coursera at the Policy Actions for COVID-19 Economic Recovery (PACER) Dialogues organized by the Asian Development Bank.

Strategic Challenges and COVID-19 Impacts

Even prior to COVID-19, strategic workforce development issues have already confronted governments from both developed and developing economies. Labor markets worldwide are undergoing radical changes, as automation gains ground in several industries.

Within the next decade, some 1.1 billion jobs will be radically transformed, 300 million people will be entering the workforce, and the demand for advanced information technology and programming skills will rise by 90%. These changes imply difficult transitions for millions of workers and the need for proactive investment in developing agile learners and skilled talent.

COVID-19 has accelerated the need for workers to become part of the digital shift as the world of work becomes increasingly automated. Disproportionately impacting low-skilled workers, it has also exposed disparities in the employability of workers. These disparities stem from inequalities in access to education and skills development, which could aggravate in a post-COVID world if left unattended.

Key insights gathered from Coursera's platform data in the last 12 months may help stakeholders better understand the pandemic's impacts on the skills and education landscape and how best to move forward.

Countries with higher labor force participation rates are also those with higher skill proficiencies. Skills are essential to quality and sustainable employment. Correspondingly, the higher the skills and skill proficiencies of a country, the more there is labor participation in the job market. The loss of 435 million jobs in the first half of 2020 (UNESCO), mostly in the informal sector and among low-wage workers, is associated with these groups' lack of skills and skill proficiencies.

Industries with more highly skilled talent, especially in technology, see higher stock returns and less disruption from COVID-19. The stock performance of companies is positively correlated to their skill proficiencies. The correlation between an industry's skill proficiency and its stock return in the United States last year is 43% across all domains. The correlations for technology, business, and data science skill proficiencies are 39%, 30%, and 21%. In the last 3 months, the correlation between an

industry's skill proficiency and its US stock return is 40%, which suggests that companies with higher skill proficiency have seen their valuation disrupted less by COVID-19. With the sudden push to remote work, digital skills have also been essential to helping companies respond to the crisis.

Countries that excel in critical skills see lower income inequality. With labor markets thrown into turmoil by COVID-19 and technology putting large populations at risk of losing their jobs, countries should consider the impact of their skills landscape on income inequality. Coursera data reveals a negative correlation between a country's average skill proficiency across domains and the fraction of income held by the top 10% of its population. In the US, the share of income held by the top 10% of population is 31%, and its average skill proficiency is 58%. In contrast, the share of income held by the top 10% population in Canada is 25%, and its average skill proficiency is 71%.

Online learning is a viable means for people to continue their education amid COVID-19. The massive shift to online learning, indicated by the huge spike in total enrollments after Coursera launched its two initiatives, reflects people's need as well as interest to continue learning amid the pandemic. Huge surges were seen in all the Coursera learning domains.

Design and Implementation

Coursera works through two initiatives to respond to COVID-19 impacts.

Coursera Campus Response Initiative. Launched on March 12, this initiative is designed for university and college faculty and administrators who need to move their curriculum online and serve many students or an entire campus, amid the widespread national and localized school closures. Universities and colleges can sign up to provide their enrolled students access to about 4,000 courses, 400 specializations, and 500 guided projects from Coursera's university and industry partners. Content spans business, data science, computer science, health, information technology, social sciences, arts and humanities, and more.

Participating universities and colleges are given 5,000 licenses each and have access to Coursera's course catalogue for free until 30 October 2020. The catalogue includes content from university and industry partners. Students who enroll on or before 30 October will continue to have access to their course for at least 2 months from the date of enrollment. Certificates will be awarded by the universities where the students enroll and complete their courses.

Coursera Workforce Recovery Initiative. Started on 24 April, this initiative enables governments to offer high-quality, job-relevant online learning to workers who lost their jobs amid the pandemic and other unemployed people. The mechanics for joining are the same as those of the Coursera for campuses, but the learning content has been curated to align workers' reskilling and upskilling to both industry demand and workers' needs.

Under the initiative, the unemployed can avail of learning content related to job readiness, displaced workers' retraining, entrepreneurship, "bridge" to post-secondary training, "macro" digital literacy, and job search self-care. These learning modules enable them to go from zero education entry-level to

completing 4-month courses and getting jobs in high demand. A course certificate is issued for each completed course.

Participating governments are given 50,000 licenses each and until 30 October 2020 to enroll their unemployed workers. Enrolled learners can continue to have access to finish their courses until 31 December 2020. Large nonprofit or nongovernmental organizations dedicated to providing services to unemployed workers may be considered on a case-to-case basis.

Customized Features. User-customized features to enhance the quality, effectiveness, relevance, and usability of the online learning experience have been incorporated into the design of the initiatives. Renowned professors providing bite-size video-lessons, applied projects, interactive quizzes, and peer-reviewed assignments keep students learning under the Coursera for campuses. The engagement of top universities and industry-leading companies in the workforce recovery courses and specializations ensures world-class content. Learning content for both initiatives are also available anytime, anywhere in multiple languages, and it is simple to launch and manage apps.

Outcomes

User response to these online learning initiatives has been remarkable.

Coursera for Campus Response Initiative. Universities have responded to this initiative only a couple of weeks after it was launched. In Southeast Asia, 156 universities have signed up, 47 of which are from Indonesia, 23 from Thailand, 28 from the Philippines, 18 from Malaysia, 24 from Myanmar, 8 from Singapore, 5 from Viet Nam, and 3 from Cambodia. Some 1.4 million students worldwide have enrolled in over 8 million different courses and counting.

Recognizing that COVID-19 will not go away anytime soon, universities all over the world are also taking a long-term view. Many have signed partnerships with Coursera and other online providers for 2 to 3 years to ensure sustained delivery of blended and online learning. Most of these partnerships are with universities from the US, Europe, South Asia, East Asia, and Australia. The longer-term partnerships provide greater scope to invest in local language customization and private authoring.

Coursera for Workforce Recovery Initiative. More than 250 contracts with government agencies at national, regional/state, and city levels in over 90 countries have been signed within about 2 months after this initiative was launched. Participating countries in Asia and the Pacific include Australia, Bhutan, India, Kazakhstan, Malaysia, Pakistan, the Philippines, and Singapore. Globally, some 200,000 learners have enrolled, and 3.8 million licenses have been requested.

Malaysia is among those granted with the largest number of licenses with about 10,000 enrollees. Many enrollees have already completed their courses and received certificates and are currently looking for jobs.

The thousands of learners in data science, cybersecurity, and Python content from the Philippines have an 88% completion rate with customer satisfaction rating or net promoter score of 71. The learning

content in the Philippines reflects the retraining needs of workers, as artificial intelligence begins to displace jobs in the business processing outsourcing sector.

In Singapore, thousands of government officials are being trained in data science, computer science, and leadership.

Lessons

The massive displacement of lower-skilled, lower-wage workers precipitated by the COVID-19 pandemic joltingly reminds public and private stakeholders as well as educational institutions of the urgent need to accelerate the pursuit of policy and program measures to reduce the vulnerability of workers to sudden economic downturns. Efforts to reduce this vulnerability must build on the existing field realities but also address upcoming challenges. Coursera's experience in helping reduce such vulnerability through online learning may provide insights on the best way forward.

Overall, trends in higher education are supportive of escalating blended learning and using digital technologies to achieve sustainable development outcomes. The quick and positive response received by Coursera to its Campus Response Initiative has revealed the readiness of many higher education institutions to maximize the use of blended learning and digital approaches in meeting their educational objectives. Professors in many universities have displayed a preference for delivering content through videos and digital means rather than face-to-face lectures and tutorials. Learning content and delivery are also becoming more modular and stackable to allow for a self-paced and individualized approach to learning. Alignment of online content to industry needs and acceptance of credentials by governments need to be strengthened in the face of these trends for countries to ensure that online learning is in line with and supportive of their education goals.

While formal education remains vital, lifelong learning at work is also critical to enabling workforces to adapt to the rapid technological and economic changes affecting the world of work. It has become most pressing for governments to bring together all the key players, including companies, industry associations, and organized labor to craft short- to medium- and long-term workforce recovery solutions. Efforts to reskill and upskill workers must intensify and so should enhancements in existing labor-related educational programs.

Workforce development is challenging without reliable data, adequate government resources, and common benchmarks. Outdated, inaccurate, and patchy unemployment and skills records in several countries have made Coursera's work in determining the most feasible job paths and course content for its workforce recovery learners more challenging. Similarly, the lack of government resources and capacity to run large-scale programs have hampered the reach and localization of its services. But solutions have come about for some of these challenges.

Malaysia's social media campaigns to get updated information on its unemployed citizens have enabled it to include a significant number of them in Coursera's Workforce Recovery Initiative. Using simple and low-cost platforms to engage and monitor learners, inviting interns and apprentices to assist, and mobilizing community-based agencies and trained volunteers to do pro bono content translations have

helped offset the lack of government resources.

Replicating these sample solutions while building a comprehensive, updated unemployment and skills database will support the development and sustained pursuit of workforce development strategies targeting the most vulnerable sectors. Coursera will contribute to accelerating these processes by making more local language content available in its online learning modules and refining the metrics for measuring success in workforce recovery. Moreover, it will explore funding and sponsorship models, engaging multilateral and the private sector, to support the continued participation of governments in the Workforce Recovery Initiative when their licenses expire in December 2020.

Employability has become increasingly dependent on stronger tech and data skills. The economies of Asia are among the largest in the world. Yet, according to Coursera's Global Skills Index 2020, Asian countries are largely missing from the top 20 most skilled nations. The region's overall tech and data science skills are lagging, with major skills deficits in math, statistical programming, and software engineering.

The lack of tech and data science skills across the region can be attributed partly to poor-quality science, technology, engineering, and mathematics (STEM) education in many countries, which struggle to equip students with essential skills needed for employment. The need for stronger STEM programs is heightened by the region's brain drain, reducing the supply of skilled workers locally available.

This challenge needs to be addressed by countries across the region. Without considerable investment in upskilling the workforce, many Asian workers will be devastated by the Fourth Industrial Revolution and the pervasive impact of the pandemic.

Resources

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Chad Pasha works with governments to design and launch national skills transformation programs. Before Coursera, he led a UK Government Growth Capital team that structured large-scale investment into the United Kingdom. As data scientist with the UK Cabinet Office, he drove digital transformation across central departments. Chad also launched the world's largest education transformation project in Pakistan, funded by the World Bank, which aims to enroll millions of out-of-school children.

Asian Development Bank (ADB)

The Asian Development Bank is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members—49 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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