

THE SWITCH TO ONLINE LEARNING THREE SEMESTERS ON: AN ASSESSMENT

The massive switch to online teaching that multiple colleges and universities were compelled to carry out, most often within days, at the onset of the Covid-19 pandemic early last year affected some 220 million students across the world and promptly gave rise to assessments that this unforeseen move would change the face of higher education forever. Universities will never be the same after the coronavirus crisis, asserted Nature on June 1, citing virtual classrooms as a major game changer. Don't Kid Yourself: Online Lectures Are Here to Stay, claimed The New York Times on June 5. How forcing colleges to go online could change higher education for the better, Vox proposed to explained on September 9. The Pandemic Pushed Universities Online. The Change Was Long Overdue, argued the Harvard Business Review on September 29.

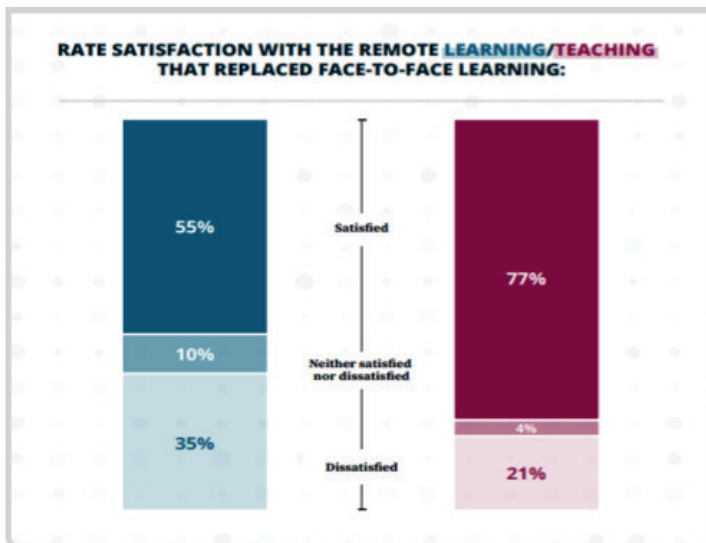
Though a final assessment is still far out of reach as of this writing, such headlines, a few months on, have become noticeably more sparse. Surveys have been produced, many stakeholders have been interviewed, a huge amount of data has been amassed, and the broad picture that is now taking shape is clearly a fragmented one. Beyond the multiple accounts of how (predominantly unprepared) faculty across the world transitioned to online teaching – ranging from the nearly calamitous to

the thoroughly enlightening – which is now a thing of the past, two dominant outlooks are emerging when it comes to assessing whether, once the pandemic is no longer a major threat, it will be best for brick-and-mortar universities to mainly embrace in-person teaching again, or invest massively in remote offerings. One tends to view the pandemic as a parenthesis, the other indeed as a turning point. The first is evidently grounded in data that underscores the adverse effects the switch to online learning may have had for all involved, while the second points to the positive takeaways that may usher in a change of paradigm. Neither is to be taken as a conclusive account of what can be said at this point of the move to remote learning.

COVID-19, A PARENTHESIS

A first significant indicator of the impact the switch to virtual classes has had on learning emerges from surveys carried out among students who had mainly been enrolled in on-site programs prior to the pandemic. Satisfaction surveys conducted early in the fall semester 2020 in the United States, where full closing became the norm across campuses within days after the onset of the pandemic, produced mixed results. In September, Wiley Education Services published a study involving 4,280 students and 499 faculty that, interestingly, underscored the differences in perceptions between students and instructors of what in the online experience had gone well or not and to what

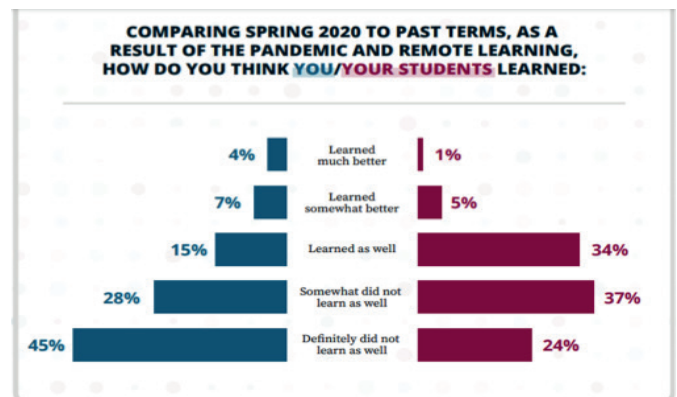
extent. To begin with, the overall satisfaction rate was 77 percent among faculty but only 55 percent among students. When asked to compare their remote experience with that of previous terms, respondents provided more granular results – with, as shown below, the largest group of instructor respondents, 37 percent, agreeing with the statement “my students somewhat did not learn as well” and the largest group of student respondents, 45 percent, agreeing with the statement “I definitely did not learn as well”.



An even wider gap in perceptions appears regarding the statement “I felt I set clear expectations”, with which 91 percent of instructors identified, vs. “I knew what was expected of me”, with which only 57 percent of students identified. In another survey, conducted by Digital Promise, an American non-profit, among 1,008 undergraduate students in the spring, 79 percent of respondents said that staying motivated through the semester had been a problem. While 51 percent were very satisfied with their courses before Covid-19, only 19 percent said the same of their courses after Covid-19. A majority of students said that what they had missed the most was the interaction with their peers and professors.

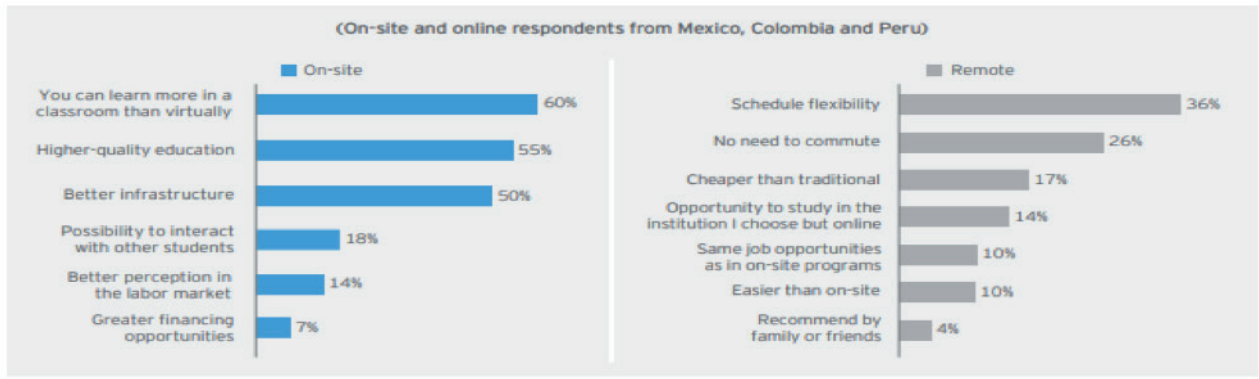
In Europe, the European Commission published this year an analytical report, *The impact of Covid-19 on higher education: a review of emerging evidence*, based on the results of 14 surveys carried out between February

and July 2020 and some 50 journal articles. Results show that a “significant proportion of students encountered serious challenges in their learning”, with 47.43 percent saying that “their academic performance changed for the worse since on-site classes were cancelled” and over 55 percent reporting that they had “a larger workload since the transition to online teaching”. An impressive 81 percent said they missed the “person-to-person” interaction. The report also points



out that student assessment and academic integrity in an online environment had been identified as a significant concern by quality assurance agencies, not only in Europe but across Africa, Asia and Australia, and quotes the World Bank’s estimation that this issue is exacerbated by a “general distrust in the quality of remote learning, accompanied by the fact that the regulatory environment is not yet sufficiently aligned with online learning”.

No comparable data is available for other regions of the world, but in April 2020, EY-Parthenon Education, a global consultant, surveyed 4,800 students for a study called *The impact of the Covid-19 pandemic on higher education in Mexico, Colombia and Peru*. Asked to compare the merits of online vs. in-person learning, 60 percent of students surveyed said that they could learn more in person and 55 percent said that on-site learning makes for higher-quality education. Most students worried about their ability to pay attention in virtual classes, and about the lack of personalized attention from instructors. Other answers supply additional insights: Across countries, one major immediate



Notes: EY-Parthenon digital surveys; Mexico (n = 840); Colombia (n = 723); Peru (n = 291).

concern was how to address the obstacles to online learning faced by vulnerable, underprivileged students – from insufficient access to devices and connectivity to having to learn in an uncondusive environment. Another concern developed as the pandemic lingered on regarding the impact of remote learning on students’ mental health.

Besides the students’ tangible yearning for the face-to-face experience, additional facts in the context of the pandemic point to the possibility of a massive return to in-person teaching without major transformations. One of them is indeed the skyrocketing spike in cheating in online tests and exams reported by universities across the world. Examples: incidents of cheating counted at the end of 2020 were up 269 percent over the previous year at the University of Calgary and 146 percent at the University of Waterloo in Canada, 300 percent at Queensland University of Technology in Australia, 100 percent at the University of Texas in the U.S., while in the U.K. the Quality Assurance Agency reported that the pandemic had accelerated the rise of contract cheating, with a total of 904 essay mills known to be operating in the country last year.

Furthermore, in countries where most institutions of higher learning are grounded in a residential model with a very high cost to students such as the United States, the issue of what amount of tuitions to charge for remote learning came to the fore only a few weeks within the crisis. Families and students rebelled early on against universities requiring face-to-face prices for remote education that offered none of the in-person benefits. They demanded refunds, rebates and increased financial aid – none of which had been initially offered by universities. In the United Kingdom, a survey of over 1,000 students par Quizlet, a digital learning platform, in December 2020 found that 86 percent of respondents wanted a full or partial tuition refund, with 53 percent describing the blended learning they had been offered as either “ineffective” or “very ineffective”. Eventually,

many institutions, including elite ones such as Princeton, Georgetown and Johns Hopkins, gave in and offered discounts for spring 2021. This means that for universities built on the in-person, residential model a broad permanent switch to remote learning would equate to a change of economic structure that, it may be assumed, few will be willing to contemplate. For mid-tier and smaller universities, the reluctance to transition to a different model could be reinforced by the huge costs involved in creating quality online education programs – which includes training and paying for experts and licensing for multiple types of software – while revenue from tuition fees would be, at least before economies of scale can be achieved, significantly lower than in brick-and-mortar models offering the full range of the educational experience at a much higher cost.

Other currents unleashed or accelerated by the pandemic may, however, point to the possibility of a sea change in the modes of delivery of higher education once Covid-19 restrictions have become a thing of the past.

COVID-19, A TURNING POINT

Be the above as it may, it is a fact that the established business model of higher education has been significantly challenged since at least the financial and economic crisis of 2008-9. The pressure for change, in other words, did not start with the Covid-19 pandemic, and the switch to online learning has simply put in sharper relief the question of the value of higher education, already the object of vast criticism for years among multiple stakeholders amidst the rise of multiple alternatives, from MOOCs and micro-credentials typical of the unbundling of higher education – all delivered online – to industry-driven certification programs, in a broader context where employability outcomes have become the key objective of any post-secondary training solution. By and large, higher education, it has been alleged, has not significantly moved to adopt a model more suited to the needs of the

labor market, as illustrated by data from the U.S. Department of Education showing that, while one third of all American students had had some type of online-learning experience before the pandemic, the other two thirds had only known campus-based lectures and classes. Proponents of the need for higher education to move past its traditional delivery modes and contents do indeed see in the pandemic the watershed that will accelerate the required changes. One such scenario is suggested by Sean Gallagher, executive director of Northeastern University's Center for the Future of Higher Education and Talent Strategy, and Jason Palmer of New Markets Venture Partners, an education-focused venture capital firm. With less than 5 percent of college budgets dedicated to IT spending, they argue, American institutions of higher learning are lagging decades behind other tertiary-education competitors. They believe that higher education's overdue transformation toward technology- and analytics-driven online learning and business models has been greatly accelerated by the pandemic. A key point in their view is that this move is increasingly driven by edtech startups and private capital: according to HolonIQ, an investment intelligence firm, the first half of 2020 was the second largest half-year for global edtech investment (at \$4.5 billion), with much of the investment focused on higher education geared to workforce needs. With the emergence of a multi-billion-dollar market for courses and degrees entirely online, powerful new platforms grounded in cloud computing, AI and huge datasets, Gallagher and Palmer argue, are already automating routine instructor tasks such as grading assignments and creating content and assessments. The result can already be seen with pioneers such as University of Illinois and Georgia Tech offering entire MBAs or masters in computer science programs online at a fraction of the face-to-face cost. Online providers such as StraighterLine and Udemy go even further by offering Netflix-like options that allow students to earn college credits or other credentials for a monthly subscription. Gallagher and Palmer assert that this will very quickly become, post-pandemic, the landscape of tertiary education. They thus see it as an even greater imperative now for university leaders and policymakers to seize the moment and turn digital transformation into a strategic priority, focused on learning and credentialing.

Robert Frank, a professor of economics at Cornell University, also believes in a massive digital transformation following the pandemic, but less as an enthusiast than because he views the move as inevitable, driven as it will be by the huge economies of scale afforded by distance learning. Putting forth his "winner-take-all" theory (defined in his 1995 book *The Winner-Take-All Society*), he argues that the pandemic has created the conditions that foster

winner-take-all markets, i.e., markets where good performers that start operating early are then able to capture ever larger shares of those markets worldwide. So it will be, Frank asserts, with leading edtechs and platforms that will benefit from feedback effects and reshape the market for academic learning, as the cost pressures imposed on colleges and universities by the pandemic accelerate the transition through ever-larger economies of scale. He nevertheless believes that the in-person teaching and learning model will survive, if only to address students' social and networking needs and because many small, specialized courses will not fit into the winner-take-all model. But, Frank insists, the face-to-face mode of delivery will no longer form the bulk of the higher-education offering.

The World Economic Forum (WEF) broadly concurs with the possibility of a pandemic-as-turning-point scenario, but from a completely different – and rather surprising – angle. The WEF argues that Covid-19 has brought to the fore the broad debate about the value of higher education and ominously warns that universities might shrink or implode in the wake of the pandemic. Though the WEF underscores the students' need for on-campus social interactions and the learning difficulties experienced by many online during the pandemic, it also asserts that current costs in multiple residential models will now become unsustainable and turn all but elite students away. This could, the WEF argues, spell doom for many of the 26,000 universities currently existing on the planet, in an era when massified higher education has already been churning out far more college graduates than needed in the labor market, and when many industries no longer require a university education but value instead entrepreneurial attitudes and a growth mindset. This, the WEF points out, is the paradox that lies in the – humanistic – 4th Sustainable Development Goal of the United Nations, «Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all»: ensuring the highest possible level of education for the greatest number of people may eventually lead to a devaluing of education, as opposed to the expansion of opportunities that it was intended to create. Yet the WEF insists that universities, now severely threatened in their very survival by the pandemic, must be preserved at all costs, in particular because preserving them also means preserving democracy. But how are they to be preserved in the post-pandemic era? As the traditional brick-and-mortar institutions the world has known for centuries, or as tech enterprises with a worldwide reach where everything that matters happens in virtual space? The WEF doesn't say.