# Regional/National Perspectives on the Impact of COVID-19 on Higher Education

*International Association of Universities*

The present report on "Regional/National Perspectives on the Impact of Higher Education" is intended to complement the report of the "1st IAU Global Survey on the impact of COVID-19 on higher education around the world"[1].

The IAU Global Survey is part of a larger set of activities carried out by IAU to inform about the impact of COVID-19 on Higher Education (HE).

*Resources and information sharing*

IAU developed a series of Webpages[2] to make useful information collected by IAU together with partner organisations around the world available to the global higher education community and other actors in society.

As well, on an exceptional basis and to contribute to making higher education information available to the entire HE community in these particular times, IAU offers FREE access to the advanced search for the *IAU World Higher Education Database* and to the *IAU HE Bibliographical Database* (HEDBIB) until end of August 2020.

*Advocacy and debate*

IAU fosters dialogue on the impact of COVID 19 on the future of higher education through virtual Global Meetings of Associations, regular virtual meetings with partners and through a series of international webinars.  Co-organised with the Boston College *Center for international Higher Education* (CIHE), CHEA and the Council of Europe, various UN bodies, this series of Webinars on the Future of Higher Education gives the floor to higher education stakeholders, including rectors, students, researchers, multilateral organisations from all five continents. These Webinars are made available for free.  Recordings are shared via the IAU YouTube

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[1] https://iau-aiu.net/IAU-releases-Global-Survey-Report-on-Impact-of-Covid-19-in-Higher-Education
[2] These pages are accessible online: https://www.iau-aiu.net/Covid-19-Higher-Education-challenges-and-responses

channel[3]. Papers[4] are also being published to advocate for the importance of higher education for today and tomorrow and to inform about the various impacts that will challenge the very future of higher education and, therefore, society at large.

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[3] https://www.youtube.com/channel/UCT5nt5FGVklxrtUHinF_LFA
[4] See e.g. Marinoni G., van't Land H. The Impact of COVID-19 on Global Higher Education (2020) I*nternational Higher Education,* Special issue, 102.

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Last but not the least, we are grateful to Giorgio Marinoni, Manager, HE and Internationalization, for his coordination and the revision of the report.

We hope that this report will provide you with a regional and national overview of the disruption caused by COVID-19 on higher education around the world and on the first measures undertaken by HEIs to minimize this disruption and to continue fulfilling their missions of educating the next generations, of advancing science and knowledge through research, and of providing service to local communities and society at large.

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# Introduction

The present IAU report on "Regional/National Perspectives on the Impact of Higher Education" is intended to complement the report of the "1st IAU Global Survey on the impact of COVID-19 on higher education around the world." The latter was an online survey open from 25 March to 17 April 2020, which received 576 replies from 424 universities and other Higher Education Institutions (HEIs) based in 109 countries and two Special Administrative Regions of China (Hong Kong and Macao) (IAU, 2020).

The survey was conceived in order to better understand the disruption caused by COVID-19 on higher education and to investigate the first measures undertaken by higher education institutions around the world in response to the crisis. It tried to capture a description of the impact of COVID-19 at the global level and on higher education in the broader sense, including all areas of universities and other higher education institutions' missions of teaching and learning, research, and community engagement.

By its very nature, the IAU Global Survey is by no means a complete or exhaustive analysis of the impact of COVID-19 on higher education and it could not analyze in detail the situation in different regions and countries of the world or capture all of the measures implemented by governments and the higher education community.

In order to complement the report and shed some light on the above-mentioned topics, IAU called its members organizations to contribute to the present report by contextualizing the results of the IAU global survey in their local realities and providing additional information.

Thanks to the immediate response from member organizations and also some partner organizations, the IAU has been able to gather a follow-up overview of the ways in which higher education has responded to the post-pandemic challenges faced. The report presents success stories at regional and national level in Asia, Europe, and North America, and gives life to the findings of the IAU Global Survey.

Four IAU member organizations at regional and national level: European University Association in Europe , Association of Indian Universities in India, NAFSA: Association of International Educators in the United States of America, and Hungarian Rectors' Conference in Hungary, as well as two partners, United Nations University Institute for the Advanced Study of Sustainability, a UN body based in Japan and U-Multirank an initiative created and supported by the European Union, contributed to this present report.

The world of higher education responded innovatively and rapidly to the crisis as it emerged in each region. The impact, however, was varied according to the particular system. This report explores the disruption caused by COVID-19 and finds that this disruption was also an

opportunity for higher education to reflect, change and innovate in order to adapt to meet arising societal needs. It is an excellent representation of the regional and national perspectives on how the higher education community has responded to the pandemic.

The report of the 1st IAU Global Survey and the present report on Regional/National Perspectives have focused on the short-term effects of the pandemic on higher education worldwide.

To capture the medium- and long-term impact of the pandemic on higher education, IAU is planning two additional editions of the Global Survey. The second one will be launched in October/November at a time that the new academic year or the new semester have started all around the world and will aim at describing how the COVID-19 pandemic has changed the functioning of HEIs, as well as the ways that HEIs have adapted to respond to the new challenges brought by the pandemic. This third one is previewed for the year 2021 when hopefully the pandemic would be over or a vaccine will have been found, in order to capture the long-term consequences of the pandemic.

# EUROPEAN HIGHER EDUCATION IN THE COVID-19 CRISIS

*Michael Gaebel, European University Association*

## A Sudden Shift to Emergency Remote Learning and Teaching

The vast majority of European universities closed their campuses in March 2020. Confirming the IAU survey findings, the European University Association (EUA) survey on "Digitally enhanced learning & teaching" affirms that 95% pivoted to distance learning throughout the institution, while 4% provided it in some faculties.

This sudden and disruptive shift to remote education varied by size, governance models, and disciplinary differences. Large comprehensive institutions usually found it more challenging to develop an institutional approach. Depending on the governance model, faculties and departments at some institutions have had their own approaches. Disciplines that require lab work, practical experience, and external collaboration were more difficult to teach remotely.

Another important factor is how much digitally enhanced learning provision had been provided hitherto. Already, a 2013 EUA survey[1] (see figure) showed that practically all higher education institutions offered some kind of digitally enhanced learning, and more than half offered or had planned online degree programmes.



**Types of e-learning offered by institutions**

| | Yes | Not yet, but planning to | No or I don't know |
|---|---|---|---|
| Online courses | 82% | 5% | 8% |
| Online degree programmes | 39% | 13% | 42% |
| Blended learning courses | 91% | 2% | 5% |
| Blended learning degree programmes | 55% | 10% | 29% |
| Joint online learning with other HE institutions | 40% | 14% | 41% |

Source: Elaborated by the author.

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[1] https://eua.eu/component/attachments/attachments.html?id=414
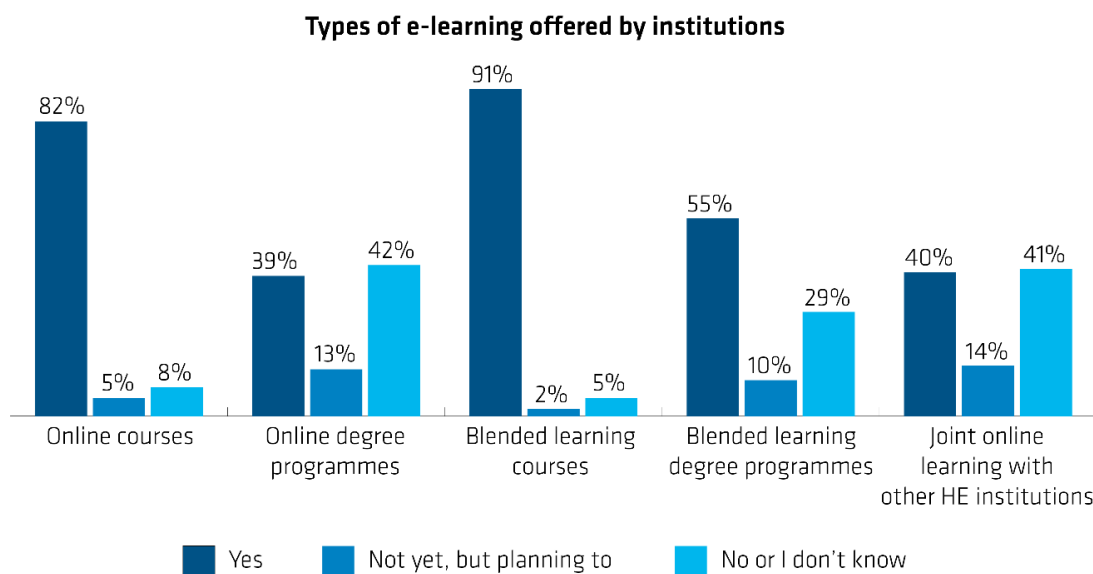
Other reports[2] confirm that the overall acceptance of digitally enhanced learning and teaching in higher education had grown over recent years, but also that many institutions were still planning to develop a more systematic and strategic employment of digitally enhanced provision. On the eve of the crisis, most institutions (80%+) indicated that they had online repositories for educational materials in place, a centre or unit that supports teachers on digitally enhanced learning and teaching, as well as digital skills training (EUA 2020). These capacities may not have been sufficient for the suddenly increased demand, and not all staff and students were familiar with them. The Irish National Digital Experience (INDEx) Survey indicates that 70% of academics had never taught online pre-crisis, with similar figures in the UK. There is no reason to believe that experience levels were different in other European higher education systems. In this regard, 2020 was a year of change: There have never been so many students and staff exposed to online learning and teaching. This may well be a historic opportunity to make a major leap in terms of digital take-up, as well as a general transformation of learning and teaching. Despite the related challenges and stress, this also explains why colleagues devoted to learning and teaching have been quite positive about the developments. The vast majority of institutions indicate that they have plans beyond the crisis to explore new ways of teaching (87%) and enhance digital capacity (70%) (EUA 2020).

The point has been frequently made that what has been provided was not distance learning, but emergency remote provision. While the ad hoc provision of online education certainly had its shortcomings, interestingly, surveys run by higher education institutions and student unions confirm that this worked relatively well and that the majority of students and staff were reasonably satisfied.[3]

While the overall situation is new, many of the challenges previously existed and have been amplified or magnified. For example, autonomous learners may have coped well with working remotely, while students with learning difficulties may have been overwhelmed. The crisis also aggravated the digital gap, in that, not all students had access to technology and highspeed internet. Many socially disadvantaged students became even more so during the crisis, and their numbers have likely increased: Around 40% of students had to interrupt their jobs or lost them and consequently have been dependent on family support. The crisis also confirmed the university as a physical place with students, in particular, missing the social experience. All this required a reflection on how student services, counselling, and peer support can be provided remotely.

To abide by physical distancing measures into the next academic year, most institutions would only be able to have one-third or less of the students on campus at a given time. This needs diligent planning and instructional design, with the best possible use of "face time" for students

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[2] Trends 2015, Trends 2018, The Changing Pedagogical Landscape.
[3] Student life in the EHEA during the Covid-19 pandemic - Preliminary survey results; USI Covid-19 Survey.

and teachers within the limits dictated by institutional infrastructure. For the online provision, a balance will have to be struck between synchronous, which students and probably also many teachers seem to favour, and asynchronous provision, advisable from an organisational and educational point of view. Over time, this should result in a better quality of education that fully considers students' needs and values the social experience, be it online, blended, or conventional provision of education.

## Internationalisation and Mobility – the First Victim

Internationalisation was hit first. An early EAIE survey report[4] (March 2020) showed that almost two-thirds of institutions saw their outgoing student mobility impacted, but only about half of them reported an impact on their incoming student mobility. Figures on outgoing and incoming staff show even lower levels of concern. A slightly later ESN survey report[5] showed that 65% of the students continued their mobility, mostly physically, as only 2.4% explicitly mentioned online courses, and 25% cancelled. This changed when border closings prevented any further transborder mobilities. The Coimbra Group, a network of around 40 universities, confirmed in a report published at the end of May 2020 that 70% of its mobile students had been able to continue their mobility virtually but leaves open whether this was from their hosting or home countries. (Coimbra Group Report, p. 16)

As transborder mobility became a nearly illegal act, some international students and staff may have found themselves with expiring grants, visas, and resident permits, and in double isolation due to the pandemic and distance from their established social networks of family and friends. This was a key challenge for both hosting and sending universities, which supported international staff and students in manifold ways, from psychological counselling and additional financial support to extended stays or increased costs of travelling home.

What are the prospects into the next academic year? Higher education institutions try to provide support, including the option to study remotely in the case of a late arrival or quarantine period. For short-term mobility, such as Erasmus+, some institutions have already cancelled short-term mobility in the next semester or even academic year, and others are envisioning hybrid or blended approaches. There are still travel restrictions, even among EU and Erasmus+ programme countries. Visa offices are not (fully) reopened, and the study application and entry test procedures had or still have to be adjusted to the new situation. It may also require some lobbying to prevent international exchange and collaboration from becoming a collateral loss of safety and austerity policies.

There is also a question of how international students will react. Media reports and surveys suggest that many international students will defer or study in home or neighbouring countries

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[4] https://www.eaie.org/our-resources/library/publication/Research-and-trends/Coping-with-COVID-19--International-higher-education-in-Europe.html
[5] https://esn.org/covidimpact-report

to avoid quarantines and uncertainties about the host institutions' operation modes, as well as the risk of ending up in "online learning abroad" at relatively high tuition fees.

So far, neither virtual mobilities nor the virtual international classroom, while technically feasible, have become common practice in higher education. However, due to the crisis, the European Commission allowed virtual exchange in (partial) replacement of physical exchange under the Erasmus+ mobility programme. While there is widespread agreement that virtual mobility cannot and should not replace physical mobility,[6] there is the question of whether it can be exploited more systematically or strategically to complement physical mobility and serve as an additional option to exchange and collaboration. Therefore, a part of the sector perceives the current crisis as an "opportunity to reflect and elaborate on renewed models of internationalisation at home." (Coimbra Group Report, p. 4).

## The Impact on Research[7]

The crisis also disrupted research activities due to restrictions on international researcher mobility, resulting in obstacles for research collaboration, the closure of labs, and the shift to remote collaboration. Critical was also the situation of early career researchers delayed in their projects. According to the SMaRteN study[8], which collected feedback from 4,000 doctoral candidates and 1,000 early career researchers one month into the lockdown, two-thirds of respondents worry about the future, 70% of which worry about their economic situation. International doctoral candidates are at greater risk, as they often do not have local support networks and might be additionally affected by the situation in their home country. While European Commission funded grants could be deferred or prolonged, they would often not provide additional funding, leaving the researcher without income unless the university decided to cover.

Generally, there is a feeling that research has also been efficient in the large-scale move online. For example, there is a clear need for capacity building and sustaining "new ways of working", such as increased interdisciplinarity and cooperation between universities and with external stakeholders, and innovative ways to foster research communication. Research and innovation have been at the forefront of the fight against COVID-19, which demonstrates the value of expertise and interdisciplinarity to the wider public. This resulted in increased visibility and appreciation for research and higher education.

The crisis demonstrated the absolute necessity to grant immediate open access to research publications and data. It also highlighted the need for better coordination of health research at the European level, as well as the potential role of universities in digital industries in the

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[6] Virtual formats versus physical mobility.
[7] If not otherwise indicated, the section is based on discussions in the EUA Research Policy Working Group, the related Expert Groups on Innovation Ecosystems, on Science 2.0 and Open Science, and at the EUA Council for Doctoral Education.
[8] https://www.smarten.org.uk/covid-19-study.html

future. Finally, the core values of the research endeavour, e.g. serving society and creating social value, have been put back at the centre of the system.

With all these open questions and uncertainties, the most preoccupying is likely the ongoing interruptions of international mobility and cooperation, the immediate shortfall in research spending, and the prospects of decreased public and private spending on research in the near future.

## The Value of Collaboration

Given that the situation was completely new, there was a generally high interest in exchanges of experience, which seems to continue as institutions plan for the next academic year. In several systems, national rectors' conferences enabled a sector response in determining lockdown periods of campuses, negotiating with the national authorities on support measures, and organising sector exchanges on pedagogics and institutional approaches. Existing national structures, such as standing working groups and national platforms on learning and teaching, were an asset.

In addition, a host of national and European university networks and alliances contributed to facilitating exchanges, sharing advice, conducting research (some of which is referenced here) and also in pooling resources and providing support. A concrete example was that, through these exchanges, universities could explore how "the National Agencies act differently from country to country when it comes to dealing with force majeure cases and it was agreed to report to the Commission how important a unified interpretation of the EU Commission's guidelines is" (Coimbra Group Report p. 14).

## Europe Matters

Europe is in a unique situation: while higher education remains a matter of national sovereignty, and therefore the actual scope of European-level action is quite limited, European organisations and structures contributed considerably to a continuation of exchange and partly also to collaboration beyond national borders.

The European Commission facilitated regular exchanges between ministries and also major European networks and associations. In addition, it adjusted its programmes to the crisis, allowing to defer collaboration and mobility, with a maximum of flexibility towards National Agencies and institutions. This was necessary but it also enhanced an already existing challenge: National Agencies respond differently, potentially resulting in a dilemma for projects and mobility implementation. While generally, also beyond the crisis, there is a need for flexibility to consider national institutional conditions, the Coimbra Group nevertheless recommended "a common interpretation of the European Commission's guidelines by National Agencies" (Coimbra Group Report p. 12).

Unlike for education, the European Commission has a mandate for research. It published a policy brief entitled "The role of research and innovation in support of Europe's recovery from the COVID-19 crisis". It covers six axes, including the essential role of R&I funding as one of the most impactful tools at EU level to tackle the COVID-19 outbreak, as well as the crucial role of R&I in coordinating the EU solid response to the pandemic. The members of the European Commission Scientific Panel for Health published an article on "Overcoming fragmentation of health research in Europe: lessons from COVID-19, including "Recommendations of the Horizon2020 Scientific Panel for Health" (cf. Annex 4.1). The European Union setting also provided a clear argument for maintaining multilateralism and reopening national borders as soon as possible.

At the level of the European Higher Education Area and the Bologna Process, the COVID-19 crisis was addressed in meetings of the Bologna Follow-up Group (BFUG), in many working groups, and is also reflected in several resulting documents.[9]The Council of Europe (COE) facilitated exchanges among its members states and European stakeholder organisations, including representatives of higher education institutions, their students, and staff. The results are to feed into a Declaration on the issue (tentatively October 2020), which emphasises the rule of law and democracy, individual rights to high quality, inclusive education also in times of crisis, and the importance of maintaining education, including higher education, as a public responsibility. All of this is of crucial importance, given infringements on academic freedom and autonomy, general violations of human and citizen rights in Europe, and concerns that this the crisis might further aggravate the situation. A dedicated task force has been established to advise ongoing COE initiatives on how to prevent and mitigate the negative impact of the crisis.

But Europe is also about nongovernmental organisations, which represent higher education institutions and their members: the European Students' Union, ETUCE representing staff unions, EUA for universities, EURASHE for non-universities and ENQA for quality assurance agencies. In addition, there is a host of dedicated networks, such as the Erasmus Student Network, bringing together Erasmus+ alumni from around the globe.

All these dialogues and activities have helped to enhance mutual understanding, mitigate the impact of the sudden disruptions that border closures caused and keep Europe internationally open.

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[9] For example, in the "Recommendations to national authorities for the enhancement of European higher education learning and teaching", and the shared approach on the "Principles and Guidelines to Strengthen the Social Dimension of Higher Education in the European Higher Education Area", which promotes national approaches to enhance equity and inclusion in higher education.

# Into the Autumn and Towards a "New Normal"

It is far too early to come to a conclusion. Research on the social and economic effects of the pandemic is ongoing, including IAU's second and third surveys, to provide the basis for a more thorough long-term analysis.

While country-level emergencies are lessened, uncertainties remain and impact the higher education sector: some institutions hope for a return to "normal" in a few months, others assume this may take a year or longer, and maybe never come given the direct and indirect consequences of the crisis, ranging from changes in the education provision, inflow of international students, and the expected cuts as part of national austerity measures. Given also the diversity of Europe, none of these can be excluded.

There is no reason to mitigate the challenges of recent months. They clearly showed the limits and gaps of the current system, in particular how it exacerbated socially vulnerable stakeholders, but also disguised learning and teaching practices that have been questioned by educationalists for many years.

It will be interesting to see what the long-term impact will be. How much will virtual exchanges and remote work be used? Will blended learning not only be a remedy in times of social distancing, but a means for more flexible and better quality learning, and generally a more fluid transition between virtual to physical? How will the experience of the crisis shape joint research, and enhance open access?

One concern is that institutional autonomy and academic freedom could be restricted as a result of the crisis. While it cannot be ruled out that this may be the case in some countries, also as part of a general move towards de-democratisation, so far, the experience is that most universities enjoyed more rather than less subsidiarity to manage the crisis. This should be considered in discussions about sustainability and resilience: While the university model is often depicted as rather static, adverse to change, and impossible to govern, due to its collegial model, in the current crisis it has been rather proficient and demonstrated resilience and adaptability that exceeded expectations. Foresight and risk mitigation are of course important, but the current crisis also raised the question of its limits: What if the next crisis is completely different – for example, a computer virus, or the breakdown of the world's electricity system? What made a difference were skills, capacities, and institutions' participatory organisational structures, which allowed to reorganise, innovate, upscale, and connect.

Another challenge will be the economic and budgetary implications for higher education: An EUA paper points to the prospects of the economy of the European Union shrinking by more than 7%, which is likely to impact, both public and private funding for higher education. Governments will have to decide on whether to support the ailing economy or to enhance health. Funding for research might focus on areas of relevance to COVID-19. There might be

a loss of student tuition fees in some systems; but in other systems, more people may go to university, to avoid unemployment and prepare for a changed labour market.

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# IMPACT OF COVID-19 ON HIGHER EDUCATION IN INDIA

*Dr. Pankaj Mittal, Secretary General, Association of Indian Universities*

The COVID-19 pandemic confronted most institutions with a sudden and unprepared shift towards online teaching and learning. The main factors impacting this change include the availability of technical infrastructure, accessibility of the institute, capacity building of teachers, and distance learning competencies, including the availability of devices and network with students. HEIs, particularly in low and middle-income countries, were unable to fully shift online due to a lack of technical infrastructure. It was also challenging for faculty to make this unexpected and unprepared shift to online learning. This was specifically challenging for subjects like clinical medicine, sciences, Engineering and Technology, veterinary studies, and several other disciplines that involve practical training. HEIs struggled with the timely completion of the semester and conducting examinations. Planning for the next academic session while dealing with financial constraints due to reduced tuition fee payment, partially due to a potential drop in student enrolment and placements, were among the biggest concerns emanating from the COVID-19 pandemic.

## Opportunities for HEIs amidst the COVID-19 Pandemic

In developing countries like India, where online education was not very common, the pandemic transformed the conventional chalk-talk teaching model to one driven by technology with the single stroke of a pen. The COVID-19 crisis forced a move towards online teaching and learning, thereby creating space for more flexible learning possibilities, exploring blended learning, and mixing synchronous learning with asynchronous learning. The pandemic has led to the capacity building of staff and faculty, compelling them to learn and test new tools and systems for online teaching and learning. This obviously will lead to an increase in innovation in teaching pedagogies, as well as delivery modalities. The pandemic has worked as a wake-up call and demonstrated the importance of technology in teaching, learning, and research.

## The Impact of COVID-19 on the Indian Higher Education System

In March, as soon as the country felt the pulse of the disaster which COVID-19 was set to bring on, the Indian Government opted for a complete lockdown in their resolve to combat the crisis, resulting in the closure of all Higher Education Institutions.  The period from March to August is crucial for the Indian higher education sector as this is the time for holding final examinations, entrance tests for admission to the new academic session, beginning the new

admission process, and campus placements for graduating students. The crisis impacted new admissions, examinations, student internships, placements, job offers, and student mobility. According to the QS-Indian student's mobility report (2020), COVID-19 had an impact on the decision of 48.46% of students who aspired to study abroad in the recent past. According to a report by Times Higher Education (THE), Indian students comprise 18.4% of total enrolment in the US alone. Surely these enrolments are going to be affected amidst COVID-19. A comparative lower rate of employability in an already expensive international higher education domain will also play a significant role in this respect. The top five countries which are preferred study destination by Indian students include USA (30.27%), UK (15.84%), Germany (14.33%), Canada (9.18%) and Australia (6.75%). However, with the recent COVID-19 pandemic outbreak, students aspiring to study in these countries might re-consider their options.

As India is a large and diverse country, with about 38 million student population in about 1000 universities and 47,000 colleges, the availability of technical infrastructure for imparting online education varies over the length and breadth, creating a digital divide and a sense of inequity in the minds of the students. Similarly, at students' end, access to devices, networks, and sufficient bandwidth is depriving a considerable portion of students from their studies and furthering this divide. Adopting complete online learning is also becoming a health hazard for students in terms of diseases like obesity, sleep disturbances, spinal problems, anxiety, and depression.

The Indian Government, universities, and educational administrators are using a multipronged approach to cope up with the complexities of the situation and minimize the negative impact of the COVID-19 crisis.

## Initiatives of the Indian Government and Higher Education Institutions to deal with the Crisis

Indian universities, realizing their commitment to students and the community, displayed adaptability, agility, and innovation in dealing with the pandemic. While academic continuity planning was of prime importance, they also understood the need for emotional support, healthcare infrastructure, building awareness, and creating new learning opportunities. Many key reform initiatives were undertaken by the universities to build resilience, ensure continuity, and create an impact in times of COVID-19. These included the transition to online classrooms to maintain academic continuity, knowledge creation through Webinars, ensuring emotional wellness by building strength, support, and awareness, the launch of online & blended learning mode degrees, learning and development by building access for student communities to online MOOCs and e-resources, healthcare infrastructure upgrade, creating scholarship opportunities, global immersion by expanding international collaborations, admissions mobility by adopting AI-enabled processes, the establishment of The Office of Digital Learning & Online Education, etc.

Universities counselled and mentored students through virtual engagement platforms, offering all information along with virtual office hours wherein they could contact staff and have live video chats with faculty. Ongoing staff training involved admission, academic, and administrative training for remote working. As its contribution towards service to the community, the Universities with medical colleges and hospitals admitted COVID patients and affordable treatment was provided with the help and expertise of its doctors and other medical staff. The safety of faculty and students was ensured by following safety guidelines for safe conduct on campus, as per World Health Organization (WHO) protocol.

At the Government level, to foster an ecosystem where institutional support is made available, rendered voluntarily to society, and leading to measurable outcomes, All India Council for Technical Education launched the Best Institution Award under the theme "India Fights Corona" and introduced a course on Universal Human Values. To help the students under duress amidst the lockdown, a web portal (https://helpline.aicte-india.org) was created to support stranded students and re-connect them to their family, schools, colleges and meet their urgent personal needs, including psychological support. The Government of India also announced a National Educational Alliance for Technology (NEAT) as a Public-Private partnership model to bring the best technological products in education technology on a single platform for the convenience of learners. The Enhancement in Learning with Improvement in Skills (ELIS) portal was created to provide all students with content to enhance learning for regular subjects and increase valuable skillsets required for the actual work environment. The Government of India also launched a 'Drug Discovery Hackathon' as a national initiative to support the drug discovery process through the participation of professionals, faculty, researchers, and students.

The Ministry of AYUSH (MoA), Government of India has undertaken several initiatives under the program 'AYUSH against COVID-19'[1]. AYUSH is an acronym that denotes Indian traditional systems of medicine including Ayurveda, Yoga, Unani, Siddha, Sowa Rigpa, as well as Homeopathy and Naturopathy. The MoA has setup an Interdisciplinary AYUSH Research and Development Task Force, which designed robust protocols for population-based prophylactic studies and add-on interventions in collaboration with the Council for Scientific and Industrial Research (CSIR), Government of India.

Digital footfalls tripled in the country just a week after the lockdown on digital initiatives, like SWAYAM 'Study Webs of Active Learning for Young Aspiring Minds,' which provides an integrated platform for various online courses across educational levels and subject areas, including skill sector courses.  SWAYAM hosted about 2000 complete courses, including teaching videos, weekly assignments, examinations, and credit transfers.

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[1] See https://health.ncog.gov.in/ayush-covid-dashbaord/#

## Initiatives of the Association of Indian Universities

The Association of Indian Universities (AIU) also initiated many new activities to minimize the impact of the crisis. Various activities, such as Online Faculty Development Programs to train faculty for online teaching, National and International Webinars, online workshops, and more are being progressively taken up by AIU to equip faculty members with the skills of transacting online curriculum. A series of live Webinars, Leadership Talks, and online courses are being organized on issues of academic interest. Like online assessments and examinations, student placement, fostering social responsibility, preparing institutions for life beyond COVID-19, etc. To enhance student engagement on the cultural front, an online competition "*Kuch Artistic Karona"* was organized wherein students could submit videos of their cultural performances. This saw a huge response and heavy student participation.

A blog and a WhatsApp group of Vice-Chancellors were created to enable the sharing of experiences, strategies, and innovations adopted to minimize the academic loss of students during the Coronavirus Pandemic. This will be published as a Monograph titled *'Protecting Academic Interests of Students during Corona Pandemic: Sharing Best Practices'.* The aim is to create a ready reference guide for future generations to help them cope with similar situations should they arise in the future. A Weekly Scholarly Article series has been initiated in which scholarly articles from eminent authors are released every Friday through the AIU website. These will eventually be compiled in the form of a book titled "Reimagining Indian Universities."

## Conclusion and Recommendations

India has taken sufficient steps to combat the impact of COVID-19, but it is felt that the government and institutions need to invest heavily in technical infrastructure to enable the shift from conventional to a blended education model. Learning assessment and examination approaches should also be reviewed in order to comply with online teaching and learning pedagogy. High quality Open Source Educational learning resources in various Indian languages should be developed, especially in subjects requiring practical skills. The developing and training of staff and faculty for online teaching and learning pedagogy through extensive capacity-building programs would go a long way in improving the quality of online teaching and learning.

# NAFSA RESPONSE TO THE IAU GLOBAL SURVEY

**NAFSA: Association of International Educators**

The International Association of Universities' (IAU) survey provided the first global overview of the impact of COVID-19 on higher education. This information is extremely valuable as institutions and organizations respond to the opportunities and challenges presented by effects of COVID-19 on higher education. Upon analysis, the results of the IAU Global Survey outlined in the report identify global and regional trends in four distinct regions of the world (Africa, the Americas, Asia & Pacific and Europe). NAFSA: Association of International Educators values the important work of the IAU and the information gathered through this global survey.

First, survey results indicate that student mobility flows and enrollment patterns are shifting globally, and the overall impact has been negative, especially for international student enrollment. Contingency plans are in place at roughly a third of reporting institutions and their partners abroad allowing students to complete the semester and plan for fall. As two-thirds of participating institutions transition to a new paradigm of teaching and learning online, results of the study indicate that challenges related to access to technical infrastructure, competences and pedagogies for distance learning and the requirements of specific fields of study are prevalent. Additionally, research has largely been impacted due to travel restrictions and the cancellation of scientific conferences and events resulting in more than half of respondents reporting scientific projects at risk of not being completed. International partnerships are reportedly strained as institutions focus more on local issues and community engagement.

The silver lining is that higher education institutions reported developing innovative approaches to these challenges by introducing more flexible online learning options, including blended and hybrid models. There is also a reported increase in interest by policymakers in the field of higher education with two-thirds of participants reporting that senior management and faculty have been consulted by public or government officials in the context of public policies relating to COVID-19. More than half indicated that their government/ministry of education will support their institution during this time of disruption due to COVID-19. In addition, a third of participants indicated that COVID-19 has created new opportunities to pursue with international partner institutions. This signals a rebirth and recommitment to higher education, but the grim short-term financial challenges will have long-lasting impacts for many institutions that are not able to withstand this disruption and are facing furloughs, layoffs, program and project cancelations, low enrollments or even institutional closures that will continue in the months ahead.

Higher education institutions in the U.S. are experiencing the impact of many of these trends first-hand.

NAFSA: Association of International Educators conducted the NAFSA 2020 Financial Impact Survey in April 2020, which gathered information on the financial impact of COVID-19 on higher education institutions in the U.S. in the areas of education abroad and international student and scholar programs and services. The purpose of this survey was to better understand the needs of the field and share this information with the U.S. Congress as future economic stimulus packages and additional policy changes are considered.

Findings of the NAFSA 2020 Financial Impact Survey support the broader findings of the IAU Global Survey. U.S education abroad programs were canceled in spring and summer 2020 with decisions still to be made for fall 2020 programs. The education abroad students returned home, resulting in significant financial losses to higher education institutions that had to provide program refunds and/or stipends and alternatives to complete course credits. International students either returned home or remained on campus and, in some cases, were being supported financially by the host institution with various items, including transportation funds, food money, housing refunds, rent money, scholarships and loans, tuition refunds and stipends for temporary housing arrangements. Institutions also reported providing support for international scholars, faculty, and staff primarily in J-1, H-1B and F-1 OPT immigration status who teach, conduct research, or hold other employment on campus. Total costs for the support for education abroad students and international student and scholar services varied, but the financial impact on U.S. institutions of higher education was significant. In addition, survey participants projected a decline in international student enrollments for fall 2020.

When extrapolated for all institution types based on numbers of institutions in each Carnegie classification, results from the survey indicate that U.S. higher education overall has potentially lost nearly US$1 billion due to shortened or canceled study abroad programs and spent approximately US$638 million in financial support for international students, scholars, faculty, and staff who remained on campus when courses moved online. Responses further estimate that U.S. higher education will lose at least US$3 billion due to anticipated international student enrollment declines for fall 2020.

COVID-19, and the global response to it, generated many challenges and greater uncertainty for international education. As the NAFSA 2020 Financial Impact Survey results show, additional economic relief will be necessary to help support and sustain international education through the crisis. One way to help is to engage U.S. policymakers on the importance of international education to the nation's higher education system and to the U.S. economy and job market. NAFSA has developed an issue brief for Congress, "Revive and Restore International Education Impacted by COVID-19," outlining the ways that the U.S. Congress can help the field.

Although the number of responses to the IAU Global Survey coming from the Americas was smaller compared to the other world regions, the NAFSA 2020 Financial Impact Survey responses help to reinforce the IAU Global Survey findings for the region. Both surveys

indicate that higher education institutions around the world are experiencing multiple challenges due to COVID-19. The financial challenges are influencing decisions on staffing, future education abroad programs, teaching and learning techniques, research, partnership and community engagement, and enrollment management strategies. As institutions shift gears to promote online learning, it must also be recognized that there are institutional costs to transitioning to a fully online platform, both in training faculty and students and providing access to appropriate learning management systems and resources. Issues of access and equity are perpetuated by this sudden transition as institutions work to ensure all students have access to technology and the internet to continue their educational programs.

These challenges also create opportunities. Reimagining higher education in this new paradigm is paramount to future success and stability. Higher education must adapt to its current context and maximize the funds of knowledge that exist on their campuses, in their communities, and through their partnerships. Finding short-term solutions to immediate needs through local or national government economic relief will allow leadership and scholars at institutions of higher education to develop long-term strategies to respond to COVID-19. Long-term solutions must take advantage of new program models for teaching and learning online that have become the norm in recent months. Data informed decision making is critical to successful long-term planning and student success. Institutions of higher education have a major role to play in both finding solutions to the current pandemic and preparing for future disruptions.

# HUNGARIAN RESPONSE TO COVID-19

*Hungarian Rectors' Conference*

## Introduction

The first official measurements against the coronavirus outbreak were introduced in March, including social distancing, limiting outdoor activities and gatherings, closing down public spaces, parks, and places for any form of social gathering. These protective measures resulted in a successful overall response to the crisis. As of July 3, 2020, the number of confirmed people with the virus in Hungary stands at 4172, recovered 2752 and 588 deceased from COVID-19. The transmission rate remained relatively low, as a result of the adopted confinement and security measures issued by the government.

## General Information

Overall, Hungarian Higher Education institutions and the education sector responded relatively well to the crisis. Recently approved governmental decrees detail mitigating regulations on the spring semester of the 2019/2020 academic year. Such as the permission for electronic functioning and decision-making of higher education institutional bodies (including senates), or the prolonged deadlines for the completion of certain types of exams that require personal presence. Based on government regulations, the HEIs began to act quickly in the middle of March, and converted to digital solutions to continue the semester. The few months of lockdown continued successfully with online teaching until regulations were gradually lifted and institutions were allowed to open again, giving the decision on face-to-face teaching back to the institutions' leaders.

## Timeline of Decisions and Regulations

- After the government declared a state of emergency in Hungary, as part of the measures to contain the virus, and in order to protect the thousands of students and staff at Hungarian HEIs, the universities were asked to close their doors after Wednesday, 12 March (Gov. Decree 41/2020. (III. 11.)). The closure was followed by a two-day break ordered by the rectors. Meanwhile, the institutions began working on solutions to secure ways for continuing the courses by all means possible.

- On 18 March, the ministry responsible for higher education provided sectoral proposals for organizing higher education in emergencies. The document contains general governance provisions for the sector (already with reference to the functioning of senates and committees)

- and recommendations related to the organization of distance learning. It also listed applications and tools for online education and value creation.

- As a part of the economic action plan, Dr. László Palkovics Minister for Innovation and Technology announced the issuance of diplomas without the previously compulsory language exam requirement. This means that more than 75,000 diplomas can be issued to those who could not complete the language exams in previous years. Since the announcement on 7 April, the universities began the processes via application forms, that are available on the institutions' website.

- The Gov. Decree 101/2020. (10 April) on the measures affecting HEIs and students during the state of emergencies introduced a number of mitigating regulations on the spring semester of the 2019/2020. This decree contains the permission for the electronic functioning and decision-making of higher educational institutional bodies, mentioned above.

- Gov. Decree 168/2020. (30 April) empowers rectors of the higher educational institutions in Hungary, with the exemption of Budapest, to decide if students are allowed to visit the institution or not. In case students start to visit the institution -as of 4 May - rectors must provide conditions to prevent the spread of COVID-19, mentioned above.

- In HEIs outside Pest county, rectors can decide on the allowance of students' personal visit in the institution, if safe conditions are provided, as of 4 May. From 13 May, rectors in Pest county can decide on the allowance of students' personal visit in the institution, if safe conditions are provided. General safety regulations apply in Pest county as in the countryside. Finally, as of 18 May, all rectors in Hungary were allowed to decide on opening for the students, if safe conditions are provided.

- As of 25 May, the border between Hungary and Serbia can be crossed without limitation and more borders were reopened to EU countries. The state of emergency was revoked in the country.

- Recently, as of 2 July, international travel outside of the EU is still banned, since there is an undoubted risk in the travel of international students. Government measurements reopened borders step by step throughout the month of June.

## COVID-19 Effect on Teaching and Learning: Good Practices and Lessons Learned

As a response to the rapidly escalating security measures in relation to the COVID-19 outbreak, the HRC asked for the institutions' experiences on how they adapted to the new situation at the end of March 2020. Within one working day we received feedback from 42 institutions (a relatively high and quick response rate), and most of them reported rather

positive experiences about the operation of e-learning systems and students' participation rates during online sessions.

The institutions used various softwares, applications, and teaching solutions for taking the courses online. The majority uses Neptun, which is a great base to provide material and contact the students, combined together with other platforms, such as Moodle, Zoom, Microsoft Teams and Stream, MeetStreet, Coospace, BlueJeans, Skype for Business, Youtube, Google Classroom, Gotomeeting,

BigBlueButton, Discord, Coursera, Udacity, Edmodo, Slack, Tinkercad, Github, PEGASO, OneDrive, and Sharepoint. In addition, the most common softwares related to special, or technical courses included Matlab, Octave, Kahoot, Redmenta, Mentimeter, Panopto, and Socrative.

Regarding the difficulties during the exam period, testing, and related issues institutions had to deal with problems related to the lack of sufficient technical preparation at the beginning of distance learning, as well as a lack of software and hardware equipment. Not all students have the right equipment or sufficient internet access to participate in every aspect of distance learning. Video conferences and real-time video classes require good-quality, high-speed internet, which is difficult to achieve in remote areas of the country.

## Examinations

HEIs agreed that the issue of cheating during digital examinations must be avoided at all costs. The majority of Hungarian higher education institutions are still looking for, and testing, the most suitable methods compatible with written and online examination to monitor and identify this problem. Although HRC's member institutions have different practices and various solutions to online examinations, the risks of cheating and plagiarism, or even third-party assistance at exams, remains a universal issue at every institution.

Most of the Hungarian HEIs will continue with online teaching until the end of the Spring semester, 2019/2020. They are accustomed to the new online way of teaching and the conditions provided for students wouldn't be equal for all students, since dormitories are still heavily regulated. In case of professional practices needed for HE programs, some institutions postponed the completion deadline, some apply assessment on an individual basis respecting the student's conditions, some approve of shorter periods of completed practices and internships.

Overall, HEIs management had the choice to organize face-to-face final examinations or choose online solutions and provide IT infrastructural facilities in the buildings of the HEI. In the end, the majority of our member institutions chose a blended solution to test the knowledge of their students, via organizing online oral exams, tests, and other creative methods. This resulted in successful final exams, graduations, and diplomas.

Some HEIs were already working with blended education formulas, this situation pushed everyone to adapt to the changing circumstances and implement new ways of knowledge transfer. The overall response from the member institutions regarding the rapid shift to online classes and digital solutions was positive. Despite pressure and uncertainty, educators are conquering the obstacles with a positive mindset.

## Issues Regarding the Next Academic Year 2020/2021

### *Hungarian and International Student Enrolment*

Planning ahead for the beginning of the new academic year, institutions are still hesitant to determine whether they will continue with online learning fully, combine face-to-face classes, or begin courses as usual. In the case of local students, the pandemic poses a number of different complications; such as lack of funding for tuition due to the economic crisis that might hinder a number of students from enrolment. They might not have the sufficient funds to pay their tuition, accommodation, and living expenses at the same time, due to the decreased availability of student-friendly job positions or the economic crisis. The fact that many dormitories will be operating at a decreased capacity further complicates their situation.

One part of the issue is finding solutions for Hungarian students, and the other part of the equation is the issue of international students, because internationalization is an important aspect of Hungarian higher education. Since every country is adapting different security measures, the enrolment of foreign students becomes an even more complex issue. Regulations regarding international students' that were unclear between March-June include the various aspects of the understanding and execution of the redefined travel and healthcare regulations regarding entering the country, student placement, and enrolment. In addition, as of 3 July, Non-EU citizens are still not allowed to enter Hungary, thus these travel restrictions are expected to cause even more difficulties with acquiring the necessary documentation. In an effort to find practical solutions, the Tempus Public Foundation's Study in Hungary team organized an online consultation with the related ministries, international coordinators, and university representatives.

Based on paragraph 79. § (11) of the T/10748 government decree, students with scholarship can begin the next academic year in Hungary via online learning and acquire student legal status without entry visa or residence permit, until they can enter the country safely. The response and decisions regarding the beginning of the next academic year are expected to be made up of a combination of students beginning the academic year through distance learning and other students attending the courses in person.

Although the documentation process for incoming students became slightly easier to enter the country, foreign embassies are in a difficult position due to local health and security regulations. Although consulates were expected to reopen from June 15th, the documentation process is still heavily delayed in many countries, which further complicates student application processes.

Regarding the status of international scholarships: the Stipendium Hungaricum program will continue, meanwhile the Scholarship Programme for Christian Young People has been suspended for the 2020/2021 academic year. (Further information regarding the current status of the program is available HERE).

It is important to mention that numerous Hungarian higher education institutions are going through internal changes and transitions amidst this global crisis. This further complicates administration and the planning of the next academic year.

## COVID-19 Impact on Research

The situation united HEIs and the research sector in an urgent need for solutions to the rising critical situation. This cooperation resulted in the research and development of several vaccines, plasma transfusion, and other medical solutions to cure the virus, in addition to the development and manufacture of revolutionary respiratory devices available for mass production.

- In a medical project supported by the Ministry for Innovation and Technology, led by dr. Zsombor Lacza, scientific vice-rector of the University of Physical Education, the research team developed the already licensed plasma serum together with Semmelweis University and the Virology Center of the University of Pécs.  the first of which was applied in the cases of two patients of Semmelweis University on Monday, 27 April, who received plasma serum containing the antibody produced in the blood of people who have already recovered from the disease. Since there was no complication due to the transfusion, they continued to use this method to cure a number of patients following this success.

- The development of a hACE2-Fc fusion protein that is suitable for therapeutic application - Eötvös Loránd University (ELTE), University of Pécs (PTE), Richter Gedeon Nyrt., Immunogenes Kft.

- The development of a mechanical ventilator - Budapest University of Technology and Economics

- Mathematical modelling, analysis and projections of the spread of the COVID–19 pandemic in Hungary - University of Szeged

- Development of anti-coronavirus candidate drugs by directed evolution - EvolVeritas

- Biotechnológiai Kft.

- Hyperacute anti-COVID–19 serum in the treatment of the virus infection - OrthoSera Kft.

- Favipiravir development - Eötvös Loránd Research Network (ELKH) Research Centre for Natural

- Sciences consortium leader, Első Vegyi Industria Zrt., Richter Gedeon Nyrt., MEDITOP Gyógyszeripari Kft.

- The clinical testing of favipiravir – stage II (clinical, application phase) - University of Pécs, ELKH Research Centre for Natural Sciences, INTEGRA Consulting Zrt.

- Multicentric, non-interventional clinical trial to identify the genetic factors that determine the course of the COVID–19 infection caused by the novel coronavirus, and prepare their pharmacogenetic applications - University of Pécs (Genomics and Bioinformatics Facility)

- Development of a flagellin-based novel fusion protein vaccine molecule – stage I - University of Pannonia (Research Institute of Bio-nanotechnology and Chemical Engineering), TargetEx KutatóFejlesztő Kft., Ceva-Phylaxia Oltóanyagtermelő Zrt.

- Studying the spread, the current state and the subsidence of COVID–19 by analyzing different wastewaters - University of Pannonia (Research Institute of Bio-nanotechnology and Chemical Engineering), University of Pécs

- A unique medical device with CPAP and BIPAP ventilation modes that is capable of both invasive and non-invasive respiratory support - Semmelweis University, Femtonics Kft., 77 Elektronika Kft., 3D Center of the University of Pécs

- The development of a mechanical ventilator (MassVentil project) - Óbuda University

## Conclusion

At the beginning of the pandemic, the ministerial principals supported the HEIs in handling the state of emergency. The experiences of digitally enhanced distance learning initiated general development and research proposals. These measurements minimized the damage and negative short-term effects of the crisis on the higher education sector, allowing students to continue their studies with minimum damage to their learning experience. Although the long-term effects of the crisis are only beginning to surface in the economy and the higher education sector, it can be said that the overall experience brought Hungarian HEIs together and established a good foundation to prepare for another potential wave of the pandemic.

# PROSPER.NET MEMBERS RESPOND TO THE COVID-19 CRISIS

*United Nations University, Institute for the Advanced Study of Sustainability*

The United Nations University – Institute for the Advanced Study of Sustainability (UNU-IAS) is a research and teaching institute focused on using knowledge generation and education for the advancement of sustainable and ecologically sound development. Through its Education for Sustainable Development (ESD) project, UNU-IAS seeks to use education as a mechanism for enabling sustainable development. In pursuit of this aim, it is the Secretariat for the higher education alliance – Promotion of Sustainability in Postgraduate Education and Research Network (ProSPER.Net). ProSPER.Net is an alliance of universities in the Asia-Pacific region committed to integrating sustainable development principles into postgraduate curriculum and research. As of this writing, there are 47 members spread across 15 countries.

While the COVID-19 pandemic has impacted all of the world's higher education institutions – and indeed all of the world - the crisis has triggered an especially unique set of circumstances for universities such as those in ProSPER.Net. These universities work extensively with education for sustainable development (ESD) in curriculum. This means that many of their education programmes go beyond knowledge acquisition and focus on learners making informed decisions and taking responsible action concerning environmental integrity, economic viability, and a just society (UNESCO, n.d.). They also work through their research on solutions to on-going crises sustainable development challenges, such as climate change, biodiversity loss, and the over-consumption of resources. Before the pandemic hit, these universities would often find their research and teaching missions at odds with the status quo of 20th century development patterns focused on a 20th century paradigm of a 21st century world.

When the COVID-19 pandemic swept the globe and campuses closed, what followed was a suspension of human activities the scale of which has never been seen before. The months-long lockdown in many countries prompted a huge push among the global population to return to 'normal,' although 'normal' for many of us was never sustainable. It is at this juncture that universities like those in ProSPER.Net find themselves now – with the great disruption to economic and social systems brought on by the pandemic offering a clear branch in the path for our development as a globe and therefore our education systems as well.

How education systems – including higher education – will move forward after the pandemic will influence this choice for many societies. Will universities return to a business as usual approach for curriculum and research used for the next generation of researchers, business

professionals, and politicians? Or, will universities use this disruption to transform education and research to advance sustainable development?

It is the latter hope that was expressed most frequently by ProSPER.Net members when asked in a survey conducted by UNU-IAS as to what universities would consider most useful in responding to the pandemic. This redesign and reorientation of the higher education system was mentioned as critical by the vast majority of respondents, stressing the need for systems thinking – the ability to analyse complex systems across environmental, social, and economic domains - in 'building back better' after the devastation of the pandemic. Not only for addressing the suffering caused by the virus and the consequent economic recession, but as means for tackling other crises that were already unfolding before the pandemic hit.

A summary of main findings from the survey is presented below to best capture how ProSPER.Net members have responded to the COVID-19 pandemic, and what their concerns and aspirations are as they continue to grapple with the pandemic and its impacts. We initially worked with 20 ProSPER.Net member institutions to illustrate the initial reactions and opinions they face in different context in their countries.  The below results offer a starting place for conversation about how universities working extensively with ESD are dealing with the pandemic and where they may be headed in the future.

- As with many of the higher education institutions surveyed by IAU in regards to COVID-19, many ProSPER.Net member institutions reported that teaching and learning have been severely affected by the pandemic, with the majority of respondents reporting campus closures and the majority of respondents also reporting that all teaching and student advising has been moved to online platforms.

- While a diverse array of issues were flagged as areas of concern by respondents, the issue of greatest concern was the implementation of international student programmes – both sending students for study abroad and research in the field, as well as receiving international students in the coming academic year. Two-thirds of respondents reported this issue as an issue of particular concern for their universities. Two out of three respondents also reported a delay in academic programmes as an area of pressing concern.

- In regards to conducting virtual lectures, nearly four out of five respondents reported they would appreciate faculty training for effective virtual lectures, while issues such as assessment of virtual classes, classroom management assistance for online courses, and security software were all deemed less important.

- In regards to what resources would be most useful to their university during the pandemic, in a ranked choice selection of eight items, re-opening criteria that matched with other universities both domestically and internationally and strategies to enhance international learning and cooperation in the absence of international travel tied for first place among responses from ProSPER.Net members. The lack of coordination about re-opening criteria among universities in regards to the pandemic seems to tie

into the lack of coordination among cities, countries, and regions that prevailed as the pandemic spread.

- When asked what would be most useful for their institution in responding to the pandemic, the majority of ProSPER.Net respondents indicated the redesign and reorientation of higher education was necessary to respond to not only the pandemic, but to other sustainable development crises that were on-going before the pandemic.

- When asked which area of sustainable development among the 17 Sustainable Development Goals (SDGs) was most critical in responding to the COVID-19 pandemic on their campuses, the most selected Goals were SDG 4 – Quality Education, SDG 3 – Good Health and Well-Being, and SDG 11 – Sustainable Cities and Communities.

As noted in the survey conducted by IAU, many faculty members among ProSPER.Net institutions also found opportunities in addition to challenges in online learning environments. While many expressed concerns about the quality of teaching with a sudden shift online, it was seen as a necessary approach that also bolstered the faculties' own capacities. Indeed, the desire for more training on the use of online learning materials was requested by the majority of respondents within the network.

However, concerns were more keenly expressed by faculty within ProSPER.Net institutions around the students' experience at the university outside of the classroom experience. Examples from individual respondents focused on students missing out on the experience of field work in research, which would ill-prepare them for working with communities on sustainable development. This was coupled with a more generalized sense of unease at students missing out on meeting people from outside the country during their studies.  While education for sustainable development is the mission of ProSPER.Net institutions, it is realizing this mission on an international level that bonds the network together and unifies their efforts. The need to create enabling environments during the pandemic for research in the field and for international connection and collaboration are paramount for universities at this time.

The results from the survey show that universities are able to innovate during the COVID-19 crisis. However, concerns about how the pandemic would generally impact the education for sustainable development agenda at universities, and the next generation of sustainability scholars in particular, was manifest throughout the findings. While efforts are being put in place to ensure knowledge acquisition can continue, the applied nature of education for sustainable development through practical field experience and collaboration are very much in limbo. It is true that technology can augment some initiatives, however, the interaction and on-site implementation needed for actual projects in education and research for sustainable development have largely been put on hold on university campuses. Further, in order to maximize the benefit of technology, proper training must be provided to create quality online lectures together with teaching and learning materials.

One of the largest shocks related to the COVID-19 crisis was not only the lethality of the virus itself, but also the chaotic and ad hoc response to it from so many sectors of society. In light of this, it is critical that the higher education sector examines how its own narrow focus of academic disciplines has contributed to this dissonant response. While medical science, sociology, and economics can all provide useful ideas and tools on how to handle the pandemic, policymakers must strive for a multidisciplinary approach from academia that can best design, characterize, and evaluate interventions that will shape people's behaviour to both protect public health and safeguard the gains we have made in human development over the past decades.

With its focus on systems-thinking and collaborative problem-solving, education for sustainable development offers a way for higher education to transform itself during the pandemic. However, in order to do this, new enabling environments will need to be created on university campuses to enable these competencies during pandemic conditions. ProSPER.Net institutions have already started working on just these types of challenges.

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# COVID-19 IS LEADING TO A QUICK SHIFT TO ONLINE LEARNING

*Dr. Frans van Vught, U-Multirank*

The COVID-19 pandemic has exposed millions of learners, teachers, and researchers to new realities, new ways of learning and teaching, examination, communicating and doing research. It is clear that the impact of COVID-19 on higher education has been tremendous, with all institutions and students having been affected. Many universities reacted in a flexible way to the crisis, but both the IAU survey and the most recent U-Multirank data (www.umultirank.org) show that not all higher education institutions were prepared for the provision of full online programmes.

The IAU global survey on the impact of COVID-19 on higher education around the world reports that about 2/3d of the responding institutions are replacing classroom teaching by distance learning. This outcome is in line with U-Multirank's data that show that some 60% of the universities worldwide reported online learning provisions in their strategic planning prior to COVID-19 (see Fig.1).

**Figure 1: Plans on online provision of degree programmes**

### Plans on online provision, N=648
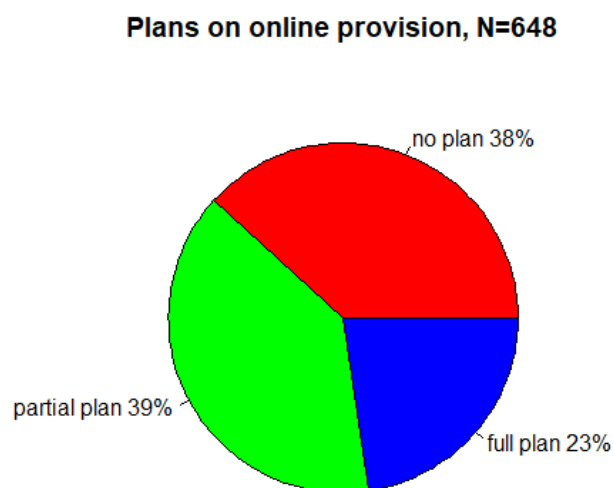


Source: Elaborated by the author.

However, U-Multirank also finds that at the start of the crisis only one third of the institutions appeared to provide full online courses in some form, which may imply that many institutions are now working hard to develop their online systems and processes (see Fig.2).

**Figure 2: Percentage of degree programmes provided online**



Percentage of degree programmes provided online, N=916

less than 5%
between 5 and 10%
between 10 and 25%
between 25 and 100%
no online programmes
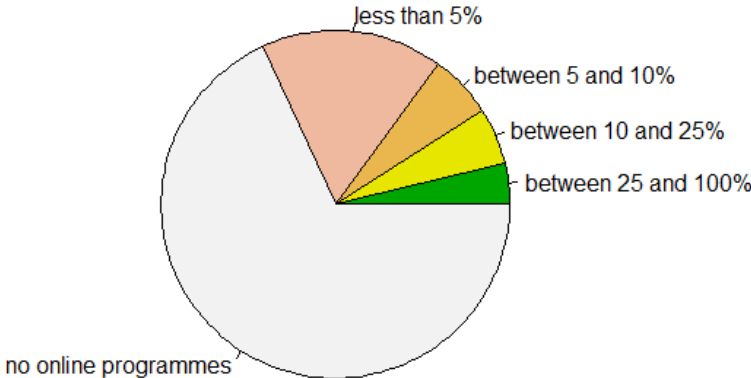
Source: Elaborated by the author.

According to the U-Multirank data, universities with a significant focus on the subject areas of education, business studies and economics, as well as larger institutions and those with a broad disciplinary scope are more likely to provide online programmes. Although a majority of universities realised the strategic relevance of online teaching before the crisis, only few were prepared for full online programmes. In engineering and science fields, the percentage of programmes that are available fully online is less than 3%, but this is substantially higher in sbjects such as business studies (12%) and economics (7%).

Furthermore, U-Multirank's data shows that the availability of interactive learning tools and digital exams is low, suggesting that online support on a large scale still proves to be difficult for many universities.

Similarly, the results of the IAU survey indicate that challenges are found in 'technical infrastructure, competences, pedagogies and specific study field requirements'.

The IAU report says that it is 'encouraging to see that higher education institutions were prepared or are reacting quickly to provide learning opportunities to their students'. According to U-Multirank, the capacity of universities to replace the provision of traditional on-campus 'face-to face' educational programmes with online provision will prove to be a key strategic response to COVID-19.

**Figure 3: Percentage of degree programmes that are available fully online by field of study**
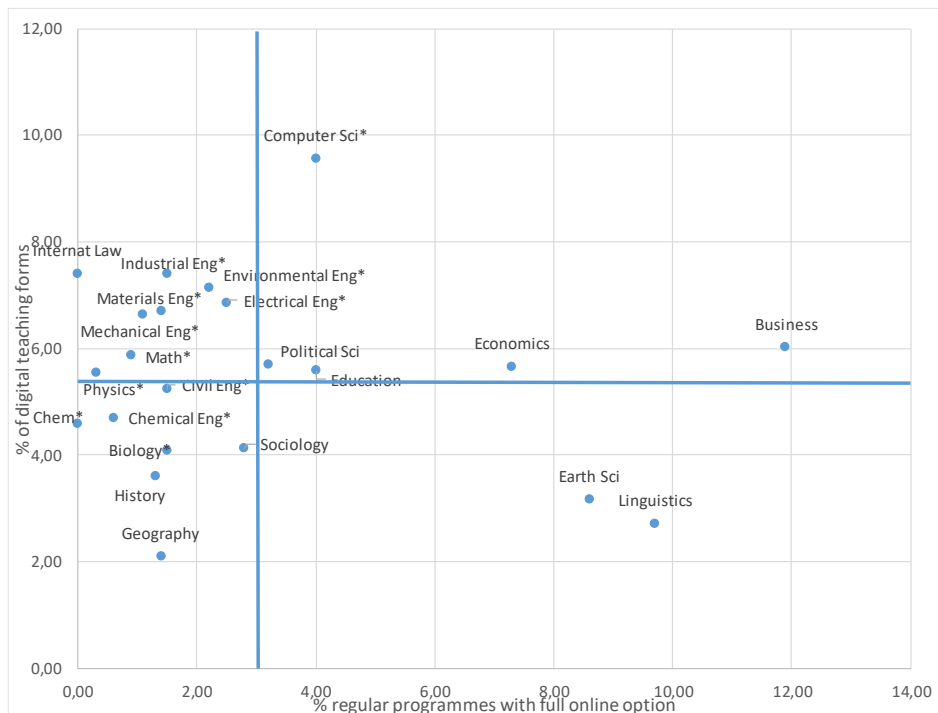


Source: Elaborated by the author.

Our overall reading of the situation is that COVID-19 caught the world of higher education by surprise but that some institutions, faculties, and programmes were better prepared to respond to the pandemic as a result of earlier investments and experience in on-line and blended forms of higher education provision. We would expect that those institutions with full or partial strategies and plans for on-line education would be best placed to respond but that there will be other institutions without such strategies with expertise and capacity at a decentralised level (e.g. in their Business Schools). There is a very harsh reality in global higher education: some systems take high-speed internet connectivity for granted while in many developing countries this remains a major challenge, thus, severely constraining the ability of institutions to respond to COVID-19 through on-line provisions. In the future of U-Multirank (2021 and 2022) releases we will be better placed to assess the scale of the impact of the pandemic on higher education world-wide.

The IAU survey outcomes are based on the responses of 424 higher education institutions from 109 countries. The U-Multirank data set consists of nearly 1,800 universities from 92 countries and includes more than 5,300 faculties and over 11,800 study programmes across 28 subject areas. Both the IAU and U-Multirank[1] indicate that their analyses are certainly not complete or exhaustive, and that further data gathering will be organised. In the months to come, we will be able to learn more about the crucial processes of change that universities worldwide are going through.

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[1] For more information on U-Multirank, see: https://www.umultirank.org/

IAU Administrative Board, 2019

## VISION

*To contribute to peace and human development by promoting and enhancing the power of higher education to transform lives, build capacity, connect diverse peoples, generate and disseminate new knowledge, create insights and find sustainable solutions to local and global challenges.*

## MISSION

*As the global voice of higher education, IAU will be the most influential and representative global association of diverse higher education institutions and their organisations, advocating and advancing a dynamic leadership role for higher education in society. Articulating the fundamental values and principles that underpin education and the pursuit, dissemination and application of knowledge, the Association will lead and advocate the development of higher education policies and practices that respect diverse perspectives promote social responsibility and contribute to the development of a sustainable future. IAU will be a think tank and forum for the development of new approaches, the sharing of best practice and the undertaking of joint action, encouraging and facilitating innovation, mutual learning and cooperation among higher education institutions around the world.*



UNESCO House,
1, rue Miollis
F 75732, Paris cedex 15
France



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**g.marinoni@iau-aiu.net**