

The Geography of Higher Education

How the Covid-19 pandemic has affected the role of HEIs vis-à-vis their ecosystems and networks

What is the impact of the current Covid-19 pandemic on higher education institutions (HEIs) and, in particular, on their capacity to cooperate with their stakeholders? What are the structural changes in higher education that will emerge from this crisis? Can the HEIs help regenerate their own ecosystems, once the pandemic will be over or under control?

These are some questions the series of webinars “The geography of higher education” (GoHE) has tried to answer. The OECD, in collaboration with ERIA, has hosted this international policy dialogue involving speakers from Europe, Asia, North and South America.

In all countries, higher education Institutions are increasingly playing an active role within their ecosystems and networks. They produce knowledge, and contribute to the well-being of their communities by generating cultural amenities, advanced services – including medical care – as well as open science and open innovation. HEIs cooperate with the public sector, including at the local and regional level, to handle societal and environmental challenges. In the same vein, HEIs can contribute to entrepreneurship and to the innovation capacity of firms of different sizes and ages.

Experts participating in the webinar series – while highlighting that not all interactions have a spatial dimension – have discussed the importance of proximity for HEIs to engage in knowledge exchange and collaboration activities with stakeholders, including during the pandemic. Importantly, knowledge exchange and collaboration activities may not come naturally to all HEIs and cannot be done at the margin of other HEIs’ mission. They require specific incentives, funding, institutions, and professional figures that promote the entrepreneurial and innovative agenda in higher education.

The Covid-19 pandemic has affected the connections between HEIs and their ecosystems. Many HEIs have reorganised their activities, to face the new challenge. Teaching has been moved on-line. A stronger link between basic and applied research has emerged, due to the pressing need to respond to the health crisis. HEIs have found new ways to support and collaborate with their local communities and national governments. Going forward, HEIs may need to better understand the language and needs of firms of different sizes and ages. A better understanding of the business environment can help improving teaching to provide students with flexibility, autonomy, accountability, and – more in general – with a “learning-to-learn” attitude. All HEIs, in all sectors and fields, need to embrace a digital paradigm, which should orient their missions and activities. Entrepreneurial, innovative and digital HEIs can collect granular information and generate data flows (while respecting privacy) and, in reverse, providing individuals with tailored information and learning opportunities.

Knowledge exchange and collaboration activities are multidimensional and encompass other dimensions, besides business. HEIs have been playing a pivotal role to move forward the Agenda 2030. The capacity to create interdisciplinary platforms and holistic planning is key to handle the pandemic and it will be important also in the “regeneration” phase, to promote sustainable development and inclusion, in all ecosystems once the pandemic is over or under control.

In general, there is a need for place responsiveness in HE systems and policies. Entrepreneurial and innovative HEIs could become hubs within territorial networks generating information, skills and support for policies, including sustainable, smart, regional development and well-being.

1st Webinar

About the webinar

The webinar on April 8th focussed on **“The Geography of Higher Education: An ecosystem approach to Knowledge exchange and Collaboration”**. This first webinar has discussed how incentives, funding, policies, and evaluation systems can catalyse the impact of HEIs (including research universities, universities of applied science, and community colleges) on their ecosystems. In addition, it has raised important questions and considerations related to the current crisis.

Two speakers participated in the discussion:

- **Andrés Rodriguez Pose**, Professor, London School of Economics, UK
- **Denis Gauvreau**, Director of Innovation and Business Development, Polytechnique of Montreal, Canada

Participants to the meeting further provided key insights via the chat.

Key messages

Both panellist spoke about the **role of HEIs in their ecosystem and particularly the role of HEIs in the fight against COVID-19**. The speakers’ debated on the contribution of HEIs to their ecosystem and capacity of HEIs to contribute to local development through knowledge exchange activities, each having divergent views on the HEIs contribution to this point. Both agreed that incentives structure at an HEI-level needed to change to allow HEIs to be more engaged in their ecosystem.

Participants have further enriched the discussion particularly on the incentives needed to help universities expand their knowledge exchange activities. They suggested that a **greater “porosity” or stronger collaboration between HEIs and external stakeholders was needed** and would allow for a successful ecosystem.

On the impact of the current COVID crisis, speakers and participants agreed **more incentives for HEI staff to engage with the external stakeholders were needed** to continue sustaining the rising interactions between HEIs and stakeholders that the crisis has brought forward (such as a clear mention of engagement activities outlines in job descriptions) . Views diverged on the impact of the crisis on the role that HEIs occupy in their ecosystem with some arguing that it will have a profound transformation on its role while others sustaining that the role of HEIs will remain the same after the crisis.

At the end of the event, participants answered a short six-question survey, which confirmed that wide majority of participants (68%) agree that knowledge spill-overs in an ecosystem required universities to create specific functions to support knowledge exchange.

2nd Webinar

About the webinar

The webinar on April 23rd focussed on “**Higher Education Institutions responses to the Covid-19 pandemic**”. The discussion was moderated by the organisers and featured six experts:

- **Christine Ennew**, Provost, University Executive Office, University of Warwick
- **Rosa Grimaldi**, Professor of Entrepreneurship, University of Bologna, Italy
- **Hoon Sang Lee**, Visiting Professor, Yonsei University, Korea
- **Sheila Martin**, Vice President, Association of Public Land-Grant Universities
- **Erwan Paitel**, Ministry of Higher Education Research and Innovation, France and Director, International Training Program and Partnerships, Université Côte d'Azur
- **Slavica Singer**, Professor Emeritus of Entrepreneurship at the J.J. Strossmayer University, Osijek, Croatia

Key messages

All speakers and participants highlighted that **HEIs are actively deploying innovative initiatives to cope with the COVID crisis**. Such initiatives include teaching, research and knowledge exchange activities. HEIs have been very actively engaged with their communities. Engagement went beyond the diffusion of scientific knowledge (many researchers published papers on the COVID-19, and helped raised public awareness) and the collaboration with the health sector for a vaccine has reached a civic dimension. HEIs had public interest at their heart collaborated with non-profits (such as food banks) and made their physical space available to the public needs (dormitories for self-quarantine, “makers’ space”). There was a consensus amongst discussants and participants for **the need to develop a collaborative culture amongst HEIs**. Positively, collaboration is happening extensively in research, and engagement with stakeholders, but the same practices are not found in teaching. The sharing of good pedagogical practices is specially needed during and after the pandemic, as the shift to online teaching is taking up speed. Some fruitful teaching practices will be more challenging to produce online (workplace learning through internships).

The covid-19 crisis has **exacerbated some inequalities amongst students**, particularly regarding the access to broadband connection to follow online courses and download study material. This inequality reaches developed countries like the United States and Croatia and even more so developing economies. The crisis has shed light on a **need for a solid organisational structure within and for HEIs**. There are good examples of ad-hoc coordination bodies’ set-up to respond to crisis that were presented by speakers. For example, the University of Bologna has created a task force gathering the university’s leadership to coordinate responses to the crisis, while France’s Ministry of Higher Education, Research and Innovation has created an online task force to help HEIs respond to the crisis. The Association of Public Land Grant Universities also help HEIs coordinate a response to the crisis. Conversely, **HEIs lacking a solid organisational structure might struggle in the face of the pandemic**. The emergency measures adopted so far (engagement with local community, scientific and economic research projects, online teaching) should continue. HEIs may also take the opportunity to undertake more of these engagement initiatives in the aftermath of the crisis. Nevertheless, as highlighted by many participants, HEIs might not have enough funds to broaden their research activities, modernise pedagogy and carry-out engagement activities that go beyond the purview of “emergency responses”.

3rd Webinar

About the webinar

The webinar on April 29th focussed on **“How Covid-19 has affected the relation between higher education systems and institutions and business?”**. This webinar further developed the discussion on HEIs response to the Covid-19 pandemic (topic of the previous webinar), with a particular focus on the knowledge exchange that HEIs have been developing in connections with business sector actors.

The discussion was moderated by the organising team and featured six experts:

- **Anthony M. Boccanfuso**, President, University-Industry Demonstration Partnership, US
- **Paul Coyle**, Founder and Director, Entrepreneurial Mindset Network, UK
- **Uzi De-Haan**, Professor, Technion, Israel Institute of Technology and Runway Startup Program, Cornell University, US
- **Siah Hwee Ang**, Professor, Victoria University of Wellington, New Zealand and Director, Southeast Asia CAPE
- **Andreas Zehetner**, Vice President International Affairs, Professor, University of Applied Sciences Upper Austria

Key messages

The relationship between business and HEIs has not suffered major changes until now, for example, research projects funded by businesses may be delayed, but not stopped as companies are trying to help research projects to continue. Internship programmes will also continue virtually.

There has been a debate amongst speakers and participants on the adaptation capacity of HEIs and to what extent the COVID-19 crisis will put pressure on universities to act with speed and change. Indeed, **the crisis has challenged the operating mode of HEIs**: the consensual decision-making process that HEIs traditionally follow is slow and universities must adapt to the rapid changes or risk losing many students and funds for research (and may even not survive). Others counter-argued that the consensual decision-making is what makes HEIs resilient. In any case the crisis represents an opportunity for structural change within HEIs.

The crisis has put even more emphasis on the **need to adopt a broader definition of entrepreneurial skills**. As suggested by speakers and in line with the HEInnovate framework, **entrepreneurial teaching in higher education should not be limited to start-up creation but should seek to foster “entrepreneurial thinking”** to promote resilience to change and problem-solving skills. Mainstreaming entrepreneurial skills throughout the curriculum will allow researchers and students to adopt a flexible mind-set and use these problem-solving skills in the current labour market or research endeavours. In that sense, Cornell-Tech has developed [studio programme](#) that allows students to transform their research into a product.

More applied research is needed in addition to fundamental research. In these times of crisis, solving pressing social economic issues has shed light on the importance of not only **“speeding up” some research process but also connecting research to pressing challenges**. This also calls for cross-sector research as well.

4th Webinar

About the webinar

The webinar on May 7th focussed on “**Agenda 2030, environmental sustainability and social inclusion**”. The webinar discussed whether the covid-19 pandemic can catalyse HEIs’ contributions into Agenda 2030 and, more in general, add momentum to the transition towards sustainable and inclusive economies and societies.

The speakers were:

- **Paul Bourguine**, Senior researcher at CNRS, UNESCO UniTwin CS-DC (Complex Systems Digital Campus) École Polytechnique, France
- **Chris McDonald**, Senior Adviser at National Indigenous Australians Agency, Australia
- **Christine Volkmann**, UNESCO Chairholder of the UNESCO Chair For Entrepreneurship and Intercultural Management, Germany
- **Per Westman**, Swedish Higher Education Authority, Sweden
- **Michiko Iizuka**, Professor, National Graduate Institute for Policy Studies (GRIPS), Japan

Key messages

While some argued at the beginning of the outbreak that the covid-19 pandemic was an equaliser affecting all human beings alike irrespectively of their locations and wealth, it is now clear that this is not true: some people are affected more, and during the economic crisis generated by the pandemic **some individuals will be affected disproportionately particularly those in vulnerable groups (minorities such as indigenous populations) and with lower social-economic status**. The same is true for education: students without good access to online training and from less educated background, will suffer more. This is true in both developing and OECD countries, where **great disparities across the same country still exist**.

The Covid-19 epidemic has revealed the need to accelerate crisis response, in education, research and knowledge exchange. **To effectively cope with the crisis HEIs need to reorganise the way in which they function and organise their activities and missions**. To generate value for the actors in their ecosystems – and take advantage of the new opportunities for research related to the Covid-19 epidemic and connected challenges – **HEIs need to adopt entrepreneurial behaviours and connect and combine knowledge from different disciplines**. These interdisciplinary platforms can serve both research and teaching activities.

From data-sets to data-flows: to fight effectively against the challenges generated by the Covid-19 pandemic, and to regenerate economies and communities once the pandemic will be over or under control, policies will need to be informed by a constant flow of data. HEIs have a role to play and some examples are already emerging (<https://tracktherecovery.org/>). **HEIs can help collect and track data, contribute to regeneration plans that take into account sustainability and inclusion “by design”**. Such investment plans could positively affect the absorption capacity of regional economies. Accordingly, digitalisation is multi-faceted. Digital help collect granular data and transform information into knowledge, to help sustainability and inclusion. Digital can also support teaching and learning and generate mixed forms of on-line classes and social interactions with heterogeneous groups of stakeholders including teachers and peers. Based on digital technologies, **HEIs may become institutions based on a mix of local and international networks that reach out also most vulnerable communities**.

5th Webinar

About the webinar

The webinar on May 14th “**Skills for the Future: New Teaching and Learning Methods, a Dialogue with the Private Sector**” discussed what skills will be most needed in the future, as well as types of interactions between HEIs and the business sector, with representatives from the business sector and more in general organisations involved in new and innovative forms of teaching and learning.

The speakers were:

- **Olivier Crouzet**, Head of Pedagogy, École 42, France
- **Luigi Torlai**, Project Leader, International recruitment, Audi, Germany
- **Marc-Etienne Ouimette**, Head of Public Policy and government relations, Element AI, Canada
- **Tim Ackermann**, Head of Global Talent Acquisition, Tui, Germany

Key messages

There is no single way by which the business sector collaborates with HEIs, it depends on industry sectors and the individual characteristics of each company: more R&D intensive businesses look at collaborations on research and recruiting skilled PhDs, other businesses, perhaps the majority, collaborate mostly in terms of discussing skills needs for the future and offering internships and on-the-job training to some students. Some other teaching and learning organisations financed by the private sector (such as Ecole 42) are experimenting with innovative ways to train students and are offering an alternative to traditional tertiary education.

The following skills are emerging as necessary skills to thrive in the labour market: **digital-related skills** (coding, programming skills, usage of ICT, not only from theory but also in practice) **in combination with creativity, flexibility, agility, ability to work effectively in a team, leadership and management skills**. The combination of these skills sets is particularly attractive for business sector recruiters.

To deliver the above-mentioned skills, schools and **HEIs need to become agile themselves by meeting and even anticipating the demand from the business sector**. To do so, HEIs need to keep the dialogue with the business sector constantly open and be able to quickly react and adapt. Technology is not “conservative” and it constantly innovates, it is often not easy for HEIs to meet the pace and adapt at the same speed.

HEIs need to understand the context and the labour market in which they operate. Newly hired workers do not need to have competences for everything (from marketing to services, from customer care to research) but they need to be open-minded, agile and able to learn. The covid-19 pandemic has made this ability to cope with new challenges and learn new ways of working even more important and it is likely that companies will value even more these skills in the post-pandemic recovery phase.

Binary higher education systems (those systems where research universities and technical HEIs coexist) are considered by many a good model to look at. This is for example the situation in many OECD countries (such as the US, Germany, the Netherlands) where collaboration between HEIs and the business sector is strong. **Technical higher education institutions have certainly a role to play in shaping and delivering the skills of the future**.

Wrap-Up Webinar

The concluding webinar on June 19th “Geography of Higher Education (GoHE) and Impacts of the Covid-19 pandemic” furthered the discussions on the main findings of the previous webinars. Covid-19 catalysed a dynamic that was already in place – an emerging need to have HEIs generating economic and societal value through their missions/activities. This narrative, however, may be difficult to accept especially for some (average) research universities, which may argue that their role is not to create skilled workers for their communities. Therefore, there is a need for a better narrative that can be used with all HEIs to promote effectively the entrepreneurial and innovative agenda in all higher education systems.

The speakers were:

- **Andrés Rodríguez Pose**, Professor, London School of Economics, UK
- **Denis Gauvreau**, Director of Innovation and Business Development, Polytechnique of Montreal, Canada
- **Juan Carlos Navarro**, Principal Technical Leader, Science and Technology, Inter-American Development Bank

Participants to the meeting further provided key insights via the chat.

Key messages

- The COVID crisis has highlighted some structural challenges that HEIs need to address.
 - Research has taken the lead at the expense of engagement with the local community and teaching. Rankings of HEIs prioritise research, and research-intensive universities have the highest prestige. But HEIs are not producing knowledge that is useful to the community. Research and engagement can go hand-in-hand. In North America, HEIs connect their researchers with their local communities, which has facilitated a transition for fundamental research to applied research.
 - The COVID crisis has also highlighted that HEIs’ business models are at risk as new actors are transmitting knowledge (coding school such as École 42) or that produce and share knowledge (such as start-ups).
- The COVID crisis also provides opportunities for HEIs to redefine their role within the ecosystem. HEIs are providers of scientific knowledge, in only a few weeks HEIs have become a source of reference that leaders are turning to. HEIs are also well positioned to help students and firms transition towards a more digital society
- To face these challenges, new HEIs models need to emerge:
 - Digital technologies such as Artificial Intelligence can help universities engage more with their increasingly digitalised ecosystems. Digitalisation can facilitate the creation of new platforms for teaching, research engagement with the community.
 - New governance frameworks and new metrics will also need to be developed to accompany HEIs in their transitions
- Cross-policy making is essential to assist HEIs throughout this transition. Higher Education policy needs to be linked to innovation and regional development, among others.