

# Higher Education in the Post-pandemic World

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For Australia and the post-pandemic world, 22 October 2020

Notes at: <https://blog.highereducationwhisperer.com/2020/09/higher-education-in-post-pandemic-world.html>

# Shift to Remote Work and Study in March 2020

"The advice from our ANU medical experts is clear: to control the spread of COVID-19 we must take tough action ... so effective tomorrow Thursday 26 March, all our campuses will shift to remote work and study."

From the Vice Chancellor of the Australian National University, Professor Brian P. Schmidt AC FAA FRS, 25 March 2020.



# Online Teaching for COVID-19 Worked

- Course materials and assessment using the existing Moodle Learning Management System
- Project group work using the existing project tools, such as Slack
- Face to face student/staff interaction replaced with video conferencing (Zoom).



Worthington, T. (2020, June). Blend and Flip for Teaching Communication Skills to Final Year International Computer Science Students. Paper accepted for the IEEE International Conference on Teaching, Assessment and Learning for Engineering (TALE), 10-13 December 2019, Yogyakarta, Indonesia. URL <https://openresearch-repository.anu.edu.au/handle/1885/204833>

# Higher education after COVID-19: Online Plus Campus



Wall mounted LCD screens & desks on wheels at ANU Marie Reay Teaching Centre

Worthington, T. (2020, April). Responding to the Coronavirus Emergency with e-Learning, Athabasca University.  
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# Pathways to Work, Training and Further Education

"Senior secondary certification requirements and the way learning is packaged should be restructured so that students are not presented with a binary choice between vocational or higher education pathways."  
(Shergold and others, 2020)

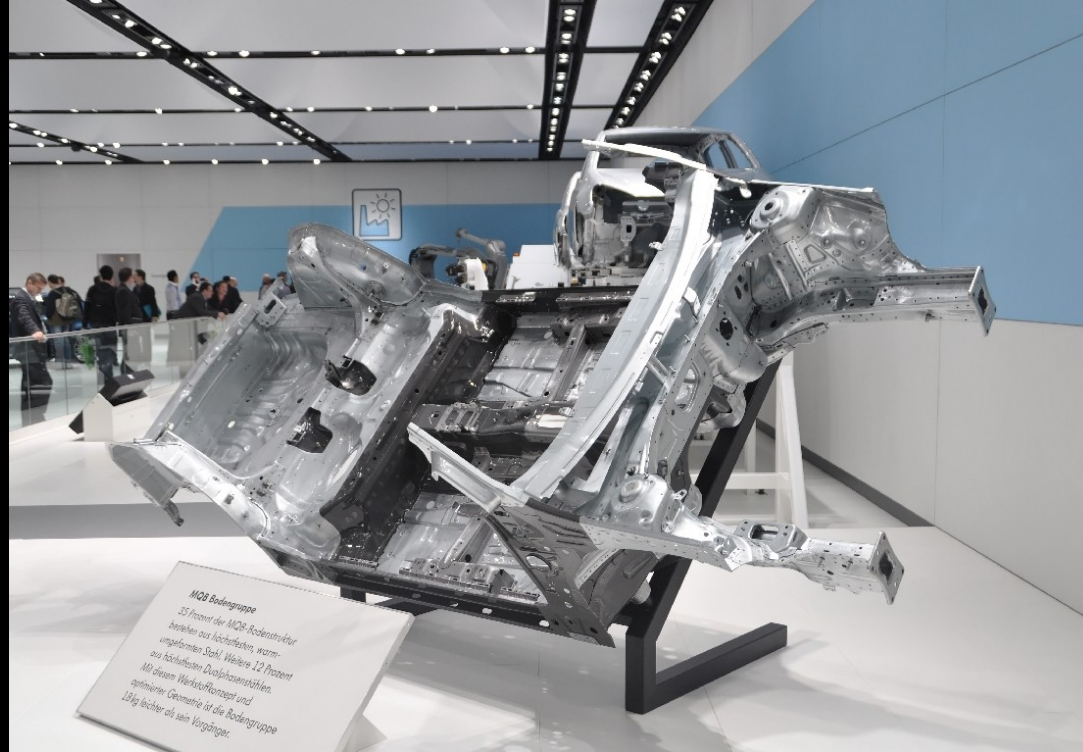


Professor Peter Shergold, Chancellor, UWS

Shergold P., Calma, T., Russo, S., Walton, P., Westacott, J., Zoellner, J. and O'Reilly, P. (2020, 17 June). Looking to the future – Report of the review of senior secondary pathways, into work, further education and training, for the Education Council of the Council of Australian Governments (COAG). URL

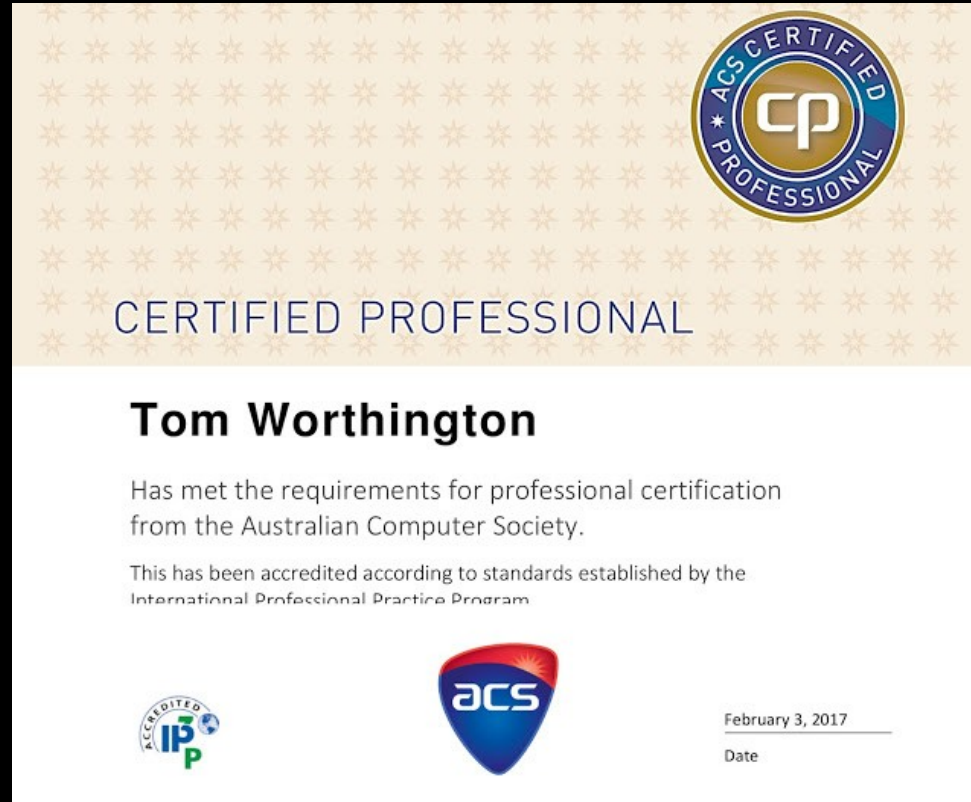
<https://uploadstorage.blob.core.windows.net/public-assets/education-au/pathways/Final%20report%20-%202018%20June.pdf>

# The Degree of the Future is Like a Car Platform



MQB Platform for VW, Audi, SEAT, Škoda, coupes, hatchbacks, saloons, station wagons, convertibles, MPVs, SUVs, and panel vans (Ra Boe / Wikipedia)

# Global Professional Standards



Excerpt from ACS Certified Professional Certificate

# Synchronous learning in an asynchronous matrix

The image is a promotional postcard for a virtual hackathon. At the top left, it features the ANU Humanitarian Innovation Society logo. To its right, the text 'HEALTH INNOVATION HACKATHON' is displayed. The central focus is the title 'FIGHTING PANDEMIC', where each letter is contained within a vertical bar of varying heights. The background of these bars is a dark, stylized graphic of a virus or molecular structure with orange and red nodes. Below the title, the event schedule is listed: 'WORKSHOPS: 8 & 9 AUGUST' and 'PITCH DAY: 15 AUGUST', with the venue noted as 'ONLINE'. The bottom of the postcard is a row of logos for the event's partners: ANU, IBM, Call for Code, University of Queensland, UTS, and others.

ANU HUMANITARIAN INNOVATION SOCIETY

HEALTH INNOVATION HACKATHON

FIGHTING PANDEMIC

WORKSHOPS: 8 & 9 AUGUST PITCH DAY: 15 AUGUST  
VENUE: ONLINE

ANU IBM CALL FOR CODE UNIVERSITY OF QUEENSLAND UTS

[Fighting Pandemics](#) virtual hackathon, August 8, 2020, by the ANU Humanitarian Innovation Society ([ANU HISoc](#)), with the [Clinton Global Initiative University](#) and [IBM](#)



# COVID-19 & Geopolitics Changing Higher Education



Education is an important aspect for cooperation between China and other countries

## Credentials

46

countries have signed agreements with China on recognizing each other's academic credentials since 2016



24

among them are nations along the routes of Belt and Road Initiative

# See also

For a full list of references please see the accompanying notes:

<https://blog.highereducationwhisperer.com/2020/09/higher-education-in-post-pandemic-world.html>

## References

- Chandran, R. (2010, May). National University of Singapore's Campus-Wide ELearning Week. In Global Learn (pp. 2062-3302). Association for the Advancement of Computing in Education (AACE). URL <https://cpb-us-w2.wpmucdn.com/blog.nus.edu.sg/dist/0/119/files/2011/03/national-university-of-singapores-campus-wide-elearning-week.pdf>
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## Abstract

Like many educators, my world changed suddenly in early 2020. I was called to an emergency meeting of the staff of the Australian National University, College of Engineering and Computer Science. We were told that due to COVID-19 many of our international students would be unable to get to campus: could we teach them online? There was a moment of shocked silence, then a roar of questions: “How many? How long for? Will they have Internet access? What about assessment?” It happened for my Masters of Education I looked at how to provide online education to international students at a research intensive university. Also I had worked in emergency planning at the Australian Department of Defence, so had some relevant experience. But it has been a challenging year. What are the lessons learned for educating professionals online? How will this change higher education for domestic and international students into the future?

# Shift to Remote Work and Study in March 2020



On 6 February 2020 I attended an emergency staff meeting at the Australian National University where we were asked if we could quickly switch to teaching online. Some of our students and staff were overseas so unable to return to campus. The Vice Chancellor [announced](#) first a "pause", then a wholesale shift to online teaching and working from 26 March.

# Online Teaching for COVID-19 Worked

- Course materials and assessment using the existing Moodle Learning Management System
- Project group work using the existing project tools, such as Slack
- Face to face student/staff interaction replaced with video conferencing (Zoom).



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The Australian National University already had a well supported suite of online learning tools, based around the Moodle Learning Management System. This continued to be used to deliver documents, pre-recorded videos and assessment tasks to students. Moodle was also used to provide students with quizzes and text based asynchronous forums to aid their learning Computer science students continued to use project management and communication tools, such as GitHub and Slack, for [working in teams on group projects](#). COVID-19 forced the replacement of face to face team meetings, tutorials and workshops with video conference tools, such as Zoom.

## Higher education after COVID-19: Online Plus Campus



Wall mounted LCD screens & desks on wheels at ANU Marie Reay Teaching Centre

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One possible future for higher education is **Online Plus**. There can still be campuses with classrooms, but with flexible flat floor rooms, like those in the the Australian National University's Marie Reay Teaching Center. The core of the curriculum will be online for delivery in asynchronous mode, so a typical student can spend about 80% of their time off campus, learning while working anywhere the world.

# Pathways to Work, Training and Further Education



Professor Peter Shergold, Chancellor, UWS

Shergold P., Calma, T., Russo, S., Walton, P., Westacott, J., Zoellner, J. and O'Reilly, P. (2020, 17 June). Looking to the future – Report of the review of senior secondary pathways, into work, further education and training, for the Education Council of the Council of Australian Governments (COAG). URL

<https://uploadstorage.blob.core.windows.net/public-assets/education-au/pathways/Final%20report%20-%202018%20June.pdf>

A recent report to the Council of Australian Governments lead by Shergold recommended not presenting students with a binary choice between vocational and university education. COVID-19 has forced much of secondary and higher education online and this provides the opportunity to consider how to integrate them better and provide them more flexibly. Australian secondary education can be blended into the vocational education system and that into university.

# The Degree of the Future is Like a Car Platform



International vehicle manufacturers use one engineering "platform" to produce many different models for customers around the world. This approach can be used by universities to provide internationally standardized qualifications. These can be nested to allow from a three week micro-credential to a multiyear doctorate. The basic online curriculum can be available with blended, hybrid, face to face, and work integrating learning options.



# Global Professional Standards



An example of the platform approach is the International Professional Practice Partnership (IP3) under the Seoul Accord for certifying computer professionals. The Australian Computer Society (ACS) certifies computer professional under the scheme, along with other nations, such as the Canadian Information Processing Society (CIPS).

Engineering qualifications are similarly accredited under the Washington Accord.

This provides a level of international standardization of the skills and knowledge required in professions, and a guide to university curricular. Universities are not required to teach in the same way, as long as graduates have the required attributes. Like a car maker's platform, such global agreements take many years to produce, but once agreed, they increase the quality and reliability of global education.

# Synchronous learning in an asynchronous matrix

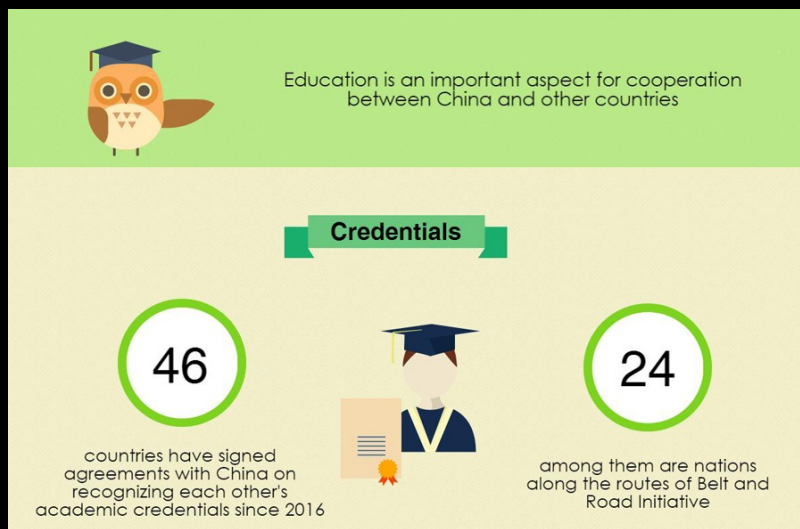


[Fighting Pandemics](#) virtual hackathon, August 8, 2020, by the ANU Humanitarian Innovation Society (ANU HISoc), with the [Clinton Global Initiative University](#) and IBM

Classroom activities which require student interaction and group work were easily able to transition from face to face to online mode in 2020. Examples of high interaction student group activities at the Australian National University are the TechLauncher computer science projects, Innovation ACT entrepreneurial competitions, and hackerthons. An example of the latter is the Fighting Pandemics virtual hackathon, run in August by the university's Humanitarian Innovation Society, with the Clinton Global Initiative University and IBM.

The transition from classroom to online was made possible by delivering synchronous learning embedded in an asynchronous matrix. This form of flipped learning uses a text message system, such as Slack, before, during and after video conference sessions, using a platform such as Zoom. Students are given a series of challenges, each with a deadline. The deadlines are used to synchronize the asynchronous communication (Worthington & Wu, 2015).

# COVID-19 & Geopolitics Changing Higher Education



Infographic: Learning through Belt and Road, Ma Chi, China Daily, 2017-05-10 06:07

China's Education Action Plan for the Belt and Road Program offers assistance to students in developing nations. The Chinese government is now also promoting online education as a result of COVID-19. International tensions may limit future student travel, without warning, just as COVID-19 did.

For most students a campus experience will remain attractive, but only for a small part of their study. Australian universities should therefore offer an online option to domestic and international students, if they wish to remain a viable education option. Universities which require attendance for no good reason will find students voting with their smart-phones and taking their business online, elsewhere.

# See also

## References

- Chandran, R. (2010, May). National University of Singapore's Campus-Wide ELearning Week. In *Global Learn* (pp. 2062-3302). Association for the Advancement of Computing in Education (AACE). URL <https://cpb-us-w2.wpmucdn.com/blog.nus.edu.sg/dist/0/119/files/2011/03/national-university-of-singapores-campus-wide-elearning-week.pdf>
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