

## Managing Recent Disruptions and adapting to a post-COVID World: The case of China

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Shen Wenqin\*

### **Futao Huang**

I'd like to invite our fourth speaker, Doctor Shen Wenqin from Graduate School of Education, Peking University of China, to give a talk. Wenqin, are you there?

### **Shen Wenqin**

I'm here.

### **Futao Huang**

Good, as I introduced, your title is about COVID-19 and higher education in China: impacts and response. So please.

### **Shen Wenqin**

Good morning, everyone. Thank you very much for the invitation and I'm very honored to have the opportunity to share my observation on the impact of COVID-19 on Chinese higher education.

As you can see it in China, the COVID-19 pandemic was well controlled after March 2020. Nonetheless, the vast majority of Chinese college students are still unable to return to campus for classes between March and July 2020, and college

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courses during this period are basically online. Just after the break of COVID-19, the Chinese government quickly launched initiatives to start online courses and universities develop a lot of online courses in a short time. And based on the statistics of the Chinese government, there were more than 1.07 million courses after the break of the COVID, and totally more than 70 million college students participated in the online learning.

And also, the Chinese government did a survey of the quality of online learning. And according to the survey result, more than 80% of teachers have confidence in online learning and are willing to continue online teaching or mixed teaching after the pandemic. Also, we can see that the webinar or the online lecture become very popular after COVID-19. Before COVID-19, Chinese university, for example, my university and other Chinese leading university invited a lot of foreign scholars to visit Chinese universities, but because of COVID-19, they cannot come to China. A lot of Chinese universities hold online webinars or seminars to adapt to this situation. And what's the advantage of webinars? I think after COVID-19, a lot of teachers and universities recognized that Webinars had a lot of advantages compared to traditional seminars. Firstly, the international webinars are much cheaper than before. Before COVID-19, if we want to invite the international scholars to give lectures or talks in China, we have to pay for the flights and accommodations which are quite expensive.

And secondly, we can solve the inequality of the academic resource between institutions. Because in the form of webinar, lots of audiences from different universities can participate.

And also COVID-19 has a huge impact on funding of universities. Firstly, because of COVID-19, China's economic growth has been negatively affected, and the revenue of the government reduces a lot. It means the government cannot support higher education as generously as it used to. For example, we have Double First-Class program which targets Chinese elite university to promote them to world-class position. And after COVID-19, the funding for this program has been cut by about 1/3. Funding for many research projects has also been cut. At the same time, due to the impact of the epidemic, there are fewer channels for universities to increase their revenue through academic capitalism. Before COVID-19, an important source of income for universities is continuing education programs, many of which have been halted due to the pandemic.

Also, we are very interested in the impact of COVID-19 on Chinese students learning abroad. We all know that China is the first source country of the international students. So, it's interesting to know what's the impact of COVID-19 on the international mobility of Chinese students. After COVID-19, I and my research team interviewed a lot of Chinese college students, and we interviewed more than 100 college students until now. And based on these interviews, we have some preliminary conclusions and findings. First, we can see that learning abroad is still the best choice for many college students in China, especially for students who apply to study abroad in 2020. Secondly, you can find the UK and the USA are the most preferred destinations. Some researchers have predicted that after COVID-19, East Asian countries will become more popular destinations for Chinese students. But according to our interviews, it is not the case. At the same time, Singapore as an English-speaking country becomes more popular. From the figure shown in the ppt, we can see which countries they apply for and what's their most preferred country, and what's their final destination. We can see that very few students changed their destinations because of COVID-19. But we also predicted that there may be a difference this year. We predicted that the impact of COVID-19 on studying abroad may be significantly different between 2020 and 2021. Why? Because for college students who choose to study abroad in 2020, the decision to go abroad has been made before COVID-19. And a lot of sunk costs have been invested in this. So, they cannot change their mind. And also in early 2020, when COVID-19 broke out, a lot of students had already given up their opportunity to be admitted in graduate education programs of Chinese universities. So, they did not have other choice. They have to go abroad. Thirdly, the number of college students went broad in this year in 2021 further decreased in many universities, but we did not have nationwide data yet.

Besides that, the impact of COVID-19 on education exchange is also of concern. The Chinese government had a very big program for educational exchange. It was called CSC program which sponsored lots of students, especially doctoral students to go abroad for exchange or for seeking Ph.D. degrees. Before COVID-19 in 2019, about 10,000 Chinese students get funding from the China Scholarship Council to visit overseas for 6 to 24 months or to seek doctoral degrees abroad. This number is huge because it's all at the doctor level. And after COVID-19 in 2020, according to the government statistic, more than 7,000 Chinese doctoral students received funding from the Chinese scholarship council to visit overseas for 6 to 24 months. I think it declined a little, but this did not include students who seek Ph.D. degrees abroad. So, I think compared to 2019,

it's not a big change. We can see that this year, the number of the funding from the China Scholarship Council declined, but the reduction is not huge. In 2021, more than 8,900, Chinese doctor students receive the funding from the China Scholarship Council for exchange or Ph.D. degrees.

Finally, I want to take Peking University and Tsinghua University, as examples to see how Chinese elite universities respond to COVID-19. In my university Peking University, you can see that a lot of university researchers participate in research related to the pandemic and also campus was locked down during the pandemic. We quickly arranged students to return to campus after the pandemic was well controlled. And we also have a lot of online courses and we sent doctors from the School of Medicine to Wuhan to fight the pandemic. International cooperation suffered, especially in STEM fields. We find it quite difficult to continue the cooperation between Peking University and other western universities in STEM fields.

At Tsinghua University, a very interesting experiment in response to the epidemic is the cloned course. Tsinghua university developed some online courses, and they share these courses with other universities. Students from Tsinghua University and another university took the same course at the same time.

At the very end, I want to share my thoughts on how to manage or adapt to a post COVID-19 environment. First, I think we should reaffirm higher education as public goods. Chinese universities get lots of public funding from government and they rely on public funding very much. This is a disadvantage, but also this is an advantage. This means that universities do not need to operate according to market principles, for example, we do not fire university faculty due to financial difficulties. We just cut salaries. And secondly, we can see that compared with traditional teaching and learning models, new forms of communication such as online learning and online meeting have a unique advantage. And thirdly, the impact of COVID-19 on study abroad and international collaboration may continue, which is a big challenge for us. The number of Chinese college students studying abroad this year and next year may further decline. International cooperation become more difficult, because in-depth collaboration require face-to-face communication to transfer knowledge. Online meeting is not enough to establish international cooperation. In that case, I think early career researcher who lacks international network may have difficulties in establishing

their own international cooperation network. And this will put them in a disadvantaged position compared to the senior scholars who have already established the international work. Early career researchers may face great difficulties. If COVID-19 did not end, I think that's another huge challenge for the academic community. That's my final sharing. Thank you very much.

### **Futao Huang**

Thank you, Wenqin. As a matter of fact, while you were talking, we already had two questions. One question was raised by [Participant B], and one more comes from Professor Yonezawa from Tohoku University. Can you see these two questions in the chat room? Or should I read them for you?

### **Shen Wenqin**

Yes, I can see. Thank you. The first question is about the impact of political tension and national security issues on student mobility between British universities and Chinese universities in the post-COVID-19 era. According to our interviews, Chinese students still choose the UK as one of their most preferred destinations. And I think the UK gains some advantage compared to the US, because the relation between the US and China is even worse compared to the China-UK relationship. We find that some students change their destination from the US to the UK, but international collaboration, especially researcher collaboration will be impacted.

China may face great challenges in the future in establishing international scientific research cooperation if the relationship between China and the United States do not improve. There is a division between the US and European countries in terms of research. For example, in the global research community, some infrastructure was based in European countries. It is difficult for China to establish this kind of cooperation and division of labor with Europe.

The second question is about how universities are adapted to the budget cut. The first response I think is to cut the income of college teachers. In many universities, faculty salaries have been cut as a last resort to maintain faculty size in the crunch of university funding.

Especially in some local universities, some teachers responded that the cut is quite a lot. But we just cut money, we didn't fire people, everyone is in the same boat to overcome difficulties.

**Futao Huang**

Thank you, Wenqin. Thank you for your answers. Thank you both for your questions. It seems we have one more question, I think. Wenqin, we have one more question. Can you see the third question?

**Shen Wenqin**

Due to COVID-19, more potential students will stay in China, rather than studying overseas. Are some universities happy about this? Because they can keep more potential students temporarily?

I think some universities are happy about this, especially in elite universities. Before COVID-19, a lot of top students (it means that those students whose GPA are the highest) normally went abroad for graduate education. But because of COVID-19 and intense international relationships, some of them have to stay, for example, in my university the number of computer science students going abroad has dropped significantly. It means that lots of outstanding students have been retained due to the epidemic. But I think the trend will not change a lot in the long run. Because the infrastructure, research quality and research culture cannot be improved a lot in short term.

**Futao Huang**

Wenqin, thank you. So many questions and answers for Wenqin's talk. Thank you.



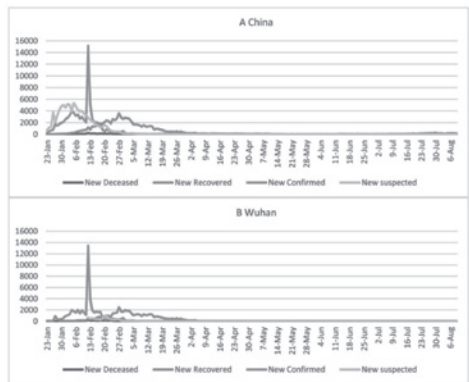
### Managing Recent Disruptions and adapting to a post-COVID World: The Case of China

Wenqin shen (Graduate school of Education, Peking University)

Hiroshima University Workshop  
December,11,2021

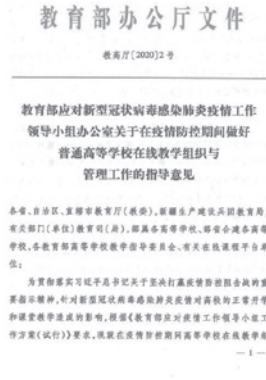
## COVID-19 pandemic in China

Xu, W., Wu, J., & Cao, L. (2020). COVID-19 pandemic in China: Context, experience and lessons. *Health policy and technology*, 9(4), 639-648.



### Governance and policy for higher education under conditions of a global pandemic: the case of China

- 1) *Guiding opinions on the organization and management of online teaching in colleges and universities during the period of epidemic prevention and control* (Ministry of Education, February 4, 2020)
- 2) The Ministry of Education makes direct deployment on whether college students return to school and when to return to school
- 3) Relevant policies are flexibly adjusted according to the development of the epidemic
- 4) the central government has also played an important role in providing free online courses to the public.
- 5) Basic principles of governance of online learning: government-led, university-based, and social participation



## Online learning during the COVID-19

**Institutions:** 1454 colleges and universities offer online courses (By May 8,2020)

**Faculty members:** 1.03 million university teachers participated in online courses (By May 8,2020)

**Online courses:** 1.07 million courses

**Students:** A total of 17.75 million college students participated in online learning

**Satisfaction:** :80% of teachers have confidence in online teaching and are willing to continue online teaching or mixed teaching after the pandemic

On March 13th, UNESCO released a distance learning solution to the world, recommending 27 learning applications and platforms that are freely available worldwide. Aicourse.com, Ali Dingding, and Lanmoyun were selected.





## The rise of webinar in China

Technology Platform: Tencent Conference; Zoom; yanxiu, etc.

The Western Education Development Online Forum held in August 2020 attracted more than 3 million listeners



## The rising of International webinars In China

During the epidemic, many universities, including local universities, made full use of online conference platforms and invited international scholars to give online academic lectures. This breaks the monopoly of elite universities on international academic resources to a certain extent.

Quantitative History Webinar Series

**Going the Distance: Eurasian Trade and the Rise of the Business Corporation, 1400-1700**

**Ron Harris**  
Edmund Libbey Professor of Law and History  
McAuley University

**Thurs, July 23**  
11:00 London | 11:00 (Tai Area) | 16:00 Hong Kong/Hong Kong/ Singapore  
12:00 Taipei | 1:00 Sydney

Before the seventeenth century, trade across Eurasia was mostly conducted in short segments along the Silk Road and other routes. Eurasians engaged in trade along land routes, maritime routes, and along the Indian Ocean, and dominated by Chinese, Indian, and Arab traders. However, around 1600 and the late seventeenth century, the English and Dutch East India Companies, two enterprises doing international trade, emerged as the major players in the trade routes. The Dutch East India Company, founded in 1602, was the world's first multinational corporation. Dutch and English enterprises monopolized trade across Asia, Africa, and India in the seventeenth century. The competition between the Dutch East India Company and the English East India Company led to the rise of the modern corporation. The English and Dutch were the first to develop the modern corporation, and they provided the model for the world. They created modern corporations through the legal incorporation with limited liability and the separation of ownership and control. They also developed the modern corporation through the legal incorporation with limited liability and the separation of ownership and control. They also developed the modern corporation through the legal incorporation with limited liability and the separation of ownership and control.

9.14 周一 11:00-12:00  
腾讯会议: 664 814 200 000

## **The advantages of webinar**

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Cost saving (especially international webinar)

solving the inequality of academic resources between institutions

A more diverse and larger audience

## **Impact on funding of the Universities**

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The impact of COVID-19 on China's economic growth

Double first-class Program funding has been cut by about one-third

The training of off-campus personnel in universities has been greatly reduced

## Impact on student mobility

While very difficult to predict, it is quite likely that the numbers of Chinese students going abroad to several of the key receiving countries will slow or even decline.(Altbach,2019)

**The willingness of students and parents to study abroad has not decreased significantly:** A questionnaire survey of 4383 parents in China's economically developed cities and regions such as Beijing, Guangzhou, Jiangsu, and Sichuan showed that 18.37% of the parents (805) hope their children will study abroad (Gu & Teng,2020)

Learning abroad is still the best choice for many college students in Chinese elite Universities

USA and UK are still the most preferred destinations. At the same time, Singapore has become more popular

thanks note: **Chai Yilin, MO Ziyou and Feng Jing** (there of them are all master students at Graduate school of Education, Peking University )interviewed more than 10 Chinese graduates who applied to go abroad. The analysis here is partly based on these interviews.

## Research universities' response to the epidemic: the cases of Peking University and Tsinghua University

**Research :**University researchers actively participate in research related to the epidemic

**Teaching and student service:** campus lock down during the epidemic  
Arrange students to return to school in batches after the epidemic has slowed; on-line courses

**Social service:**

- 1)Doctors from the University School of Medicine went to Wuhan to fight the epidemic
- 2) Provide free online courses to the public

**International collaboration**

Picture on up right: Peking University students on the high-speed rail back to Beijing

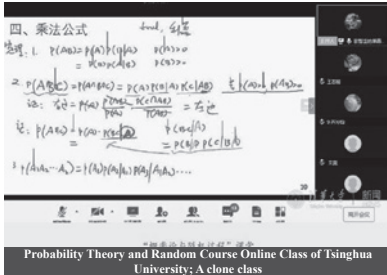
Picture on bottom right: Tsinghua University and UNESCO co-hosted a special conference on "Global Online Education and Prospects under the New Crown Epidemic"



**Research universities' response to the epidemic □ online learning and Clone course-Tsinghua's case**

On February 17, Tsinghua successfully started classes as scheduled, 3923 courses were successfully opened online

At the same time, Tsinghua University also shares its online courses with some universities for free. These courses are called clone classrooms. Students from other universities who join the clone classroom can log in to the system together with Tsinghua University students to listen to the class. In the "clone class", students from the two universities attend classes simultaneously, and have the same teaching materials and the same teacher.



**Research universities' response to the epidemic □ Fighting the epidemic with the power of scientific research**

Xie Xiaoliang's team of Peking University invested in antibody drug research on the third day of the New Year. Their goal is to find neutralizing antibodies from the blood of convalescent patients.

Zhang Pingwen's research team of Peking University cooperated with China Mobile to complete epidemic risk assessment and suspected case detection based on trajectory big data



Submitted on 2 Apr 2023 (v1) | last revised 10 Apr 2023 (the version r8)

**Detecting Suspected Epidemic Cases Using Trajectory Big Data**

Chaoran Zhou, Wen Yuan, Jun Wang, Haiyong Xu, Yong Jiang, Xinmin Wang, Guizi Han, Wen, Pingwen Zhang

Emerging infectious diseases are existential threats to human health and global stability. The recent outbreaks of the novel coronavirus (COVID-19) have shown that more precise measures to track, detect and isolate infected people are among the most effective means to quickly contain the outbreak. Here, we propose a framework for epidemic risk assessment based on trajectory big data. We first develop a novel epidemic risk scoring model named HRES (Hazardous Risk Evaluation Score) based on HRES risk maps, and use it to develop statistical inference and machine learning methods for risk detection to track the early outbreak of COVID-19 in China. Results show that the HRES risk map has strong ability in exploring global trends even on a community level, as well as at specific, high-risk locations such as hospital and station. HRES p-scores seem to be an effective measurement of person under 200m, which also aims great application potential in epidemic risk prevention and control practice.

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## Lessons learned

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What we learn ?

- 1) *state capacity* is important, especially when dealing with emergencies
- 2) Reaffirm higher education as *public goods*: public funding is important, the resilience of public institutions during financial crisis
- 3) Compared with traditional teaching and academic communication models, *new forms of communication* such as online learning and online meetings have unique advantages

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Thanks for listening

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