Higher Education and the New Cold War

Simon Marginson

Abstract

For the past 40 years, there has been a high level of collaboration in science and technology between the United States and China. This cooperation has played a key role in China's modernization and in research that furthers the global common good. This cooperation is now severely threatened by unilateral American moves.

After a long period of collaboration with China, American foreign policy has changed. US policies and institutions are gearing up for a long geostrategic battle for global primacy, especially, but not only, in East Asia. This is rightly tagged the "New Cold War." It shows in the Trump tariffs on Chinese exports, the battle over leadership in 5G technology, the US attempt to break the global position of China's telecommunications company Huawei, and hostile moves elsewhere, including science and higher education.

While the Democratic Party opposes much of Trump's agenda, there is broad US consensus on "containing China." The justification often given is China's lack of liberal democratic forms, but this is not new. The centralized Chinese system never shared the Western political heritage, based on separation between state, market, and civil society and the division of powers between executive, legislative, judiciary, and military. The notion that an internationally open China would morph into an Americanized society was always a delusion. The reason for the New Cold War is not so much that the United States has given up on Americanization, as that the United States does not want to share global leadership and is willing to suffer its own short-term economic pain in the attempt to block China's rise.

Collateral Damage

When a hitherto dominant position is under threat, leading powers often make moves that later look counterproductive (neoimperial Britain is still making counterproductive moves like Brexit long after losing global primacy!) Unfortunately, this time, universities and science are collateral damage. Global communications, deeply integrated, face the prospect of two separated systems led by the United States and China, dubbed the "splinternet." This might suit the national security apparatus in both countries, but will harm cooperation in higher education. The threat to research collaboration is similar. Recent months have seen:

- Shortening of the duration of American visas for Chinese graduate students in high-tech fields from five years to one year.
- Selective investigation of numerous scientists in the United States, all of Chinese descent, for alleged security breaches for sharing information about National Institute of Health funding applications. Some scientists lost their positions. These investigations can only be described as based on racial profiling.
- Numerous instances in which Chinese scholars have been denied entry into the United States (even scholars in geo-military-strategic fields like education!) There are signs of retaliatory visa denials affecting Americans who seek to enter China.

These US moves radically reverse the policies of the last 40 years. After Deng Xiaoping initiated China's opening up in 1978, a thick infrastructure of US–China scientific collaboration developed. The US–China Agreement on Cooperation in Science and Technology involves 50 interagency agreements and supports thousands of US–China cooperative programs. The volume and quality of joint work has expanded rapidly. US National Science Board data from Scopus shows that in 2016 there were 43,968 joint China–American papers, compared to 5,406 joint papers in 2006.

Are American Scientists "Naïve"?

Some American critics argue that coauthorship on this scale merely shows that American scientists are "naïve." Under the cloak of cooperation, China has "used" and "stolen from" US science. Marvel comic polemics like this show how the same real-world phenomena can take on opposite meanings depending on the ideological narrative used to interpret them.

All healthy cooperation in science is based on open sharing, without regard to the individual purposes that might be applied to the common stock of knowledge. Unilateral claims about "spying" politicize scientific relations, break free exchange, and destroy trust.

There is no question that China's internationalization strategy with the United States has been used to build China's R&D capacity. Both parties at the time saw this as a good thing, though they might have had differing expectations. For example, between 1995 and 2015, 68,379 students from China received US doctorates. Those same Chinese graduate students also contributed to American research at their US universities. Some stayed, others went back.

However, the partnership is no longer a one-way street, if it ever was. China's science, especially in STEM, is now very strong. A paper in development by Jenny Lee and John Haupt at the University of Arizona shows that among the 500 most highly cited China–US papers in 2014–2018, more first authors were China-based than US-based. Further, of the 10 leading government research grant agencies financing the research that

generated collaborative papers, seven were from China and they financed 3.5 times as many papers as their US counterparts. The National Natural Science Foundation of China supported 74,827 papers while the US National Institutes of Health, in second place, supported 15,489.

We All Lose

In other words, US science stands to lose as much as China's science if China–US collaboration evaporates. The rest of the world also loses. China–US collaboration, some involving scientists from other countries, greatly advances research on global problems.

Most who remember the last Cold War, in which the rivalry was an end in itself, will not want to return to two hostile camps, with no human rights between them; a world of massive military spending with the constant threat of catastrophe; where free scientific communication was overwhelmed by ideological stereotypes and national security.

Once aggressive moves begin, they can trigger an escalating process of moves and countermoves in which hostilities become entrenched. Early stages set later patterns. At this time, it is vital to protect existing links, foster mutual understanding, and keep the borders open—to minimize the extent to which universities and science, not just in the United States and China but everywhere, are dragged into the vortex of a senseless zero-sum conflict. It is especially important that universities and science outside the United States refuse to become enlisted in Cold War boycotts, and maintain and strengthen free and open relations with universities and science in both countries.◢

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