RESEARCH AND INNOVATION SECURITY AND COMPETITIVENESS INSTITUTE

THE TEXAS A&M UNIVERSITY SYSTEM

Open Source Media Summary

October 10, 2024

SAFEGUARDING AUSTRALIA'S SENSITIVE ACADEMIC RESEARCH

Andrew Horton | Australian Strategic Policy Institute | July 3, 2024

The advent of the AUKUS partnership heralds a transformative era in Australia's strategic posture and scientific landscape, propelling us into the vanguard of cutting-edge research and development. However, this newfound prominence also exposes a critical vulnerability: the susceptibility of our academic institutions to foreign espionage and intellectual property theft, a menace that threatens to undermine our economic prosperity and strategic autonomy. Australia's universities, well respected for their open research environment and spirit of international collaboration, are now facing an insidious threat. Their very strengths—free exchange of ideas, cross-pollination of diverse perspectives, collaborative spirit that drives innovation—are being exploited by foreign actors seeking to pilfer our intellectual capital and erode our competitive edge. This threat, once relegated to the realm of Cold War espionage thrillers, has become a stark reality in the 21st century, with the Chinese Communist Party emerging as a principal antagonist. China's relentless pursuit of technological dominance has manifested in a multifaceted campaign of intellectual property theft, cyber espionage and talent recruitment.

Read the full article here.

US-CHINA RESEARCH BOOSTED BEIJING'S MILITARY TECHNOLOGY, HOUSE GOP SAYS

The Associated Press | North State Journal | October 6, 2024

Partnerships between the U.S. and China at universities over the past decade have allowed hundreds of millions of dollars in federal funding to aid Beijing in developing critical technology that could be used for military purposes, congressional Republicans asserted in a new report. The report said U.S. tax dollars contributed to China's technological advancement and military modernization when American researchers worked with their Chinese peers in hypersonic weapons, artificial intelligence, nuclear technology and semiconductor technology. The report, released Monday by Republicans on the House Select Committee on the Chinese Communist Party and the House Education and Workforce Committee, raised concerns over the national security risks of once-celebrated scientific collaborations. It urged stronger safeguards and more robust enforcement. The committees conducted a yearlong investigation into higher education's role in China's economic rivalry, especially regarding technology. While American universities don't engage in secret research projects, their work — often among the best in the world — has the potential to be turned into military capabilities.

Read the full article here.

BUILDING A WALL AROUND SCIENCE: THE EFFECT OF U.S.-CHINA TENSIONS ON INTERNATIONAL SCIENTIFIC RESEARCH

Robert Flynn, Britta Glennon, Raviv Murciano-Goroff, and Jiusi Xiao | National Bureau of Economic Research (NBER) | October 2024 (Revision Date)

This paper examines the impact of rising U.S.-China geopolitical tensions on three main dimensions of science: STEM trainee mobility between these countries, usage of scientific works between scientists in each country, and scientist productivity in each country. We examine each dimension from a "U.S." perspective and from a "China" perspective in an effort to provide evidence around the asymmetric effects of isolationism and geopolitical tension on science. Using a differences-in-differences approach in tandem with CV and publication data, we find that between 2016 and 2019 ethnically Chinese graduate students became 15% less likely to attend a U.S.-based Ph.D. program, and that those that did became 4% less likely to stay in the U.S. after graduation. In both instances, these students became more likely to move to a non- U.S. anglophone country instead.

Read the full article here.

WE CANNOT ADOPT A BLANKET APPROACH TO RESEARCH SECURITY

Tommy Shih | University World News | October 2, 2024

International collaboration is an important indicator of research excellence and quality. Not only is international collaboration necessary to maintain or strengthen competitiveness on individual, organisational and aggregated national levels, but it is also necessary to find solutions to global challenges and increase understanding between different countries and cultures. Fortunately, we see increased academic interaction between a more diverse palette of countries today. Still, the global research system is highly divided, and science of the highest quality is usually conducted in North America, Europe and China, with the latter rising from relative science obscurity to a leading science nation in just three decades. Not surprisingly, the most frequent international collaborations, especially those with high citation impact, occur generally within and between the three regions cited above. Jointly, these collaborations make up the lion's share of international collaborations that are highly cited and impactful, particularly in the STEM (science, technology, engineering and mathematics) field.

Read the full article here.

THE US NEEDS TO RESTART THE FULBRIGHT PROGRAMME IN CHINA

Philip G. Altbach and Gerard A. Postiglione | University World News | October 2, 2024

It is unlikely that relations between China and the West are going to dramatically improve in the foreseeable future. Indeed, current election-induced anti-China US congressional activity is a move in the wrong direction. This has harmed educational and academic exchanges, for one thing. The number of Hong Kong undergraduate students studying in the United States, for example, dropped from 5,272 in 2015-16 to 3,021 in 2022-23. Over the same period, the number of graduate students rose from 1,041 to 1,589. The United States has the most influential and one of the largest university systems in the world. Meanwhile, Hong Kong has multiple universities that are globally ranked. Regardless of the geopolitical uncertainties, universities remain crucial institutions for mutual peace, understanding, research and security, especially with regard to health and climate-related issues.

Read the full article here.

FOR A MORE COMPETITIVE US RESEARCH ENTERPRISE, THE WORK BEGINS NOW

Marcia McNutt | Issues in Science and Technology (Arizona State University) | Fall 2024

The US scientific enterprise has for decades been a juggernaut for innovation, economic growth, and lasting national security and prosperity. However, as the head of a premier US science organization, I am growing increasingly alarmed by worrying trends that threaten to undermine our global leadership in science and our ability to continue producing the advances that our nation and world have long depended upon. As a result, I felt strongly that it was time to do what we scientists do best—take a hard look at data to get an informed assessment of the health of the US research enterprise and current trends in science leadership. I shared my findings publicly in June when I delivered my first State of the Science address. Modeled after the State of the Union addresses that US presidents give each year, the goal of my speech was to explore actions we need to take now if American science is to remain strong and successful in the years ahead—and to spark a call to action among researchers, policymakers, university administrators, philanthropists, and others in the public and private sector.

Read the full article here.

CHINESE HACKERS CRACK MAJOR US SECURITY SYSTEMS

Evan Williams | MSN | October 7, 2024

Chinese hackers have managed to access US broadband networks to gather important security information from systems used by the federal government for wiretapping. An investigation from the Wall Street Journal has revealed that Verizon Communications, AT&T and Lumen Technologies were breached by Chinese hackers in a recent intrusion into critical infrastructure. Over a period of several months, hackers thought linked to the Chinese government in Beijing held access to network infrastructure used by US security agencies to conduct court-authorized wiretapping. In addition to having access to information critical to US national security, the hackers reportedly gathered a range of general internet traffic information as well. The hack is linked to a campaign, dubbed "Salt Typhoon" by investigators, which has sent service providers and IT companies into a scramble to find out what sensitive information has been accessed.

Read the full article here.

THE POLITICS OF STEMM COLLABORATION BETWEEN AUSTRALIA AND CHINA: NATIONAL SECURITY, GEOPOLITICS, AND ACADEMIC FREEDOM

Diarmuid Cooney-O'Donoghue | Taylor & Francis | February 4, 2024

Since the 1990s, there has been a proliferation in science, technology, engineering, maths, and medical (STEMM) collaboration between Australian and Chinese universities and academics, which has produced divisions over the scientific, economic, human rights, and national security implications. Drawing on interviews with 22 academic researchers and the works of public commentators, I devise a typology of perceptions on STEMM collaboration: Pragmatic, Cosmopolitan, CCP-critic, and Leftist. Pragmatic and Cosmopolitan perceptions, which promote deep China engagement, are the most influential over the Australian government and university leadership strategy due to the economic and scientific opportunities that China presents, but CCP-critics, who highlight the national security and human rights risks involved, have growing influence over how the government and universities perceive and manage the relationship.

Read the full article here.

SCIENTIFIC COLLABORATION AMID GEOPOLITICAL TENSIONS: A COMPARISON OF SWEDEN AND AUSTRALIA

Tommy Shih, Andrew Chubb, and Diarmuid Cooney-O'Donoghue | Springer Link | June 20, 2023

Significant collaborations with research partners in China are seen in many Western countries. With increasing US-China geopolitical tensions, governments, research institutions, and individuals in established scientific systems are increasingly required to address a proliferating array of risks and challenges associated with collaboration with China. Academic researchers are only beginning to describe how countries are responding to the ongoing need for global scientific collaboration amidst intensifying geopolitical competition. Several studies have examined the securitization of scientific connections with China in the USA, while others have documented developments in nations such as Australia, the UK, and Sweden.

Read the full article here.

SINO-BELGIAN RESEARCH COLLABORATIONS AND CHINESE MILITARY POWER

Nick Houttekier, Sara Van Hoeymissen, and Cind Du Bois | Taylor & Francis | October 6, 2024

China's rise as a scientific superpower and its increasingly assertive geopolitical stance have raised concerns among Western governments over the security implications of research collaborations with China. Indeed, studies have revealed how China uses technology transfers to advance its military capabilities. In this article, we examine the links of Sino-Belgian research collaborations to the Chinese military and the evolution of these collaborations using a mixed methods approach comprising a bibliometric analysis and two case studies. Our study finds that 10% of Sino-Belgian collaborations were on critical technologies and conducted with scientists affiliated to Chinese institutes with military links. The collaborations with a military link have increased rapidly over the last two decades and have grown faster than the overall Sino-Belgian research collaborations.

Read the full article here.

WHEN COMPUTERS GO DARK

Steve Lohr | The New York Times | September 25, 2024

Two months ago, what should have been a routine software update by a security company, CrowdStrike, crashed millions of computers around the world running Microsoft Windows. Airlines grounded flights. Subways stopped. Operators of 911 lines couldn't dispatch help. Stores shut down. Hospitals canceled surgeries. The chaos, though it lasted only a few days, was telling. New advances make our lives easier, but there are trade-offs. They can vanish quickly — in an outage, a hack or a pandemic. And as the economy has become more dependent on a smaller number of technology companies, we've become more susceptible to hiccups that affect them.

Read the full article here.

USEFUL RESOURCES

DON'T BE A PAWN OF REPRESSIVE FOREIGN GOVERNMENTS

National Counterintelligence and Security Center | March 2023

Foreign intelligence entities (FIEs) and elements working on behalf of repressive regimes have sought to use U.S.-based persons to facilitate their efforts to threaten or harm perceived critics and opponents in the United States. For instance, FIEs from the People's Republic of China, the Islamic Republic of Iran, and other nations have used U.S.-based persons to conduct surveillance against and collect personal information on individuals their regimes were targeting in the United States.

View the full resource here.

RESEARCH SECURITY AND FOREIGN INTERFERENCE AT U.S. ACADEMIC INSTITUTIONS

Association of American Medical Colleges (AAMC)

Over the past decade, Congress, federal science agencies, and the media have highlighted concerns about the impact of undue foreign influence on federally funded research in the United States. For institutions, this means an increased focus on research security and the need to update internal policies and processes, while maintaining a focus on the value of a global workforce and international scientific collaborations. This page provides background information, the latest updates on relevant federal government policies and activities, and considerations and resources for institutional leadership, administrators, and researchers as they address this issue on their campus.

View the full resource here.

PROTECTING CRITICAL SUPPLY CHAINS: A GUIDE TO SECURING YOUR SUPPLY CHAIN ECOSYSTEM

Office Of the Director of National Intelligence, and National Counterintelligence and Security Center
September 26, 2024

Global supply chains are an integral part of our world. Leveraging goods and services from across a global marketplace brings tremendous efficiencies to private sector entities, academic institutions, state and local governments, and federal departments and agencies. However, these same efficiencies also expose organizations to the risks from the global supply chain.

View the full resource here.

DUE DILIGENCE GUIDANCE AND SUPPORTING DOCUMENTS

UK Research and Innovation (UKRI) | October 26, 2022

These documents are for use by organisations that are undertaking due diligence on overseas organisations that it is looking to sub-contract to.

View the full resource here.

NCSC AWARENESS MATERIALS

Office Of the Director of National Intelligence

Foreign intelligence entities, which may include foreign governments, corporations, and their proxies, are actively targeting information, assets, and technologies that are vital to both U.S. national security and our global competitiveness. Increasingly, U.S. companies are in the cross-hairs of these foreign intelligence entities, which are breaching private computer networks, pilfering American business secrets and innovation, and carrying out other illicit activities.

View the full resource here.

VIRTUAL TELEWORK PLATFORMS: STRENGTHEN YOUR POSTURE TO GUARD YOUR DATA

Office Of the Director of National Intelligence, and National Counterintelligence and Security Center

Greater workforce use of virtual telework platforms has broadened the virtual threat landscape, giving more opportunities for foreign intelligence entities and other malicious actors to exploit vulnerabilities to access sensitive personal, corporate, and government information.

View the full resource here.

COUNTERINTELLIGENCE 2.0: A FIRESIDE CONVERSATION WITH NCSC DIRECTOR MICHAEL CASEY

Center for Strategic & International Studies | October 10, 2024

Please join the CSIS International Security Program (ISP) for a virtual fireside conversation with Michael Casey, Director of the National Counterintelligence and Security Center (NCSC), on the changing nature of counterintelligence (CI) threats. Suzanne Spaulding, Director of the Defending Democratic Institutions Project, ISP, will welcome Director Casey, and Glenn Gerstell, Senior Adviser (non-resident), ISP, will moderate. *Conversation begins at 4:00 minute mark.*

View the full resource here.

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