



ACADEMIC SECURITY AND COUNTER EXPLOITATION PROGRAM

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# THE OPEN SOURCE MEDIA SUMMARY

**December 8, 2021**

## **DEAN CHIANG'S TESTIMONY TO THE U.S. HOUSE OF REPRESENTATIVES: "ENSURING AMERICAN LEADERSHIP IN MICROELECTRONICS"**

***Purdue University | December 8, 2021***

Mung Chiang, Executive Vice President for strategic initiatives and the John A. Edwardson Dean of the College of Engineering, on Dec. 2 provided testimony during a U.S. House of Representatives Science, Space and Technology Committee hearing titled "Ensuring American Leadership in Microelectronics." Chiang was one of the four invited expert witnesses and the only one from academia.

Read the full article [here](#).

## **THE QUAD: CREATING A DEFENSE TECH ALLIANCE TO STAND AGAINST CHINA**

***Stew Magnuson | National Defense | December 7, 2021***

When it comes to the undeclared Technology War between the United States and China, there is a lot for Americans to be worried about. Beijing seems to have the advantage in several key areas which is causing a great deal of consternation in Washington. The U.S. rival has become adept at industrial espionage and is stealing billions of dollars worth of intellectual property. China has a command economy and long-term vision on where it wants to be in regards to technology development. It doesn't have to contend with hyper partisanship and delayed budgets. The nation is cornering the markets on raw materials, particularly strategic minerals needed for advanced technologies. And it has a seemingly unending pile of money to invest in emerging technologies that may give its military — and economy as a whole — a winning edge. But there is one thing the United States has in abundance that China is sorely lacking: friends and allies. U.S. military leaders often say that the United States does not go to war alone — it fights alongside friends and allies. This special report is devoted to the notion that the military research-and-development community must adopt the same approach. It must form partnerships with allied nations to develop the cutting edge technologies needed to stand against China's goals of hegemony in the Indo-Pacific.

Read the full article [here](#).



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## **WHY THE FCC EXPELLED A CHINESE TELECOM FOR NATIONAL SECURITY RISKS**

***Justin Sherman | Lawfare | December 7, 2021***

After months of investigating Chinese state-owned telecommunications companies for national security risks, the Federal Communications Commission (FCC) on Oct. 26 issued an order on one, China Telecom: It can no longer provide telecommunications services in the United States. The decision renders China Telecom Americas—the U.S. subsidiary of the Chinese state-owned telecom China Telecom—unable to offer telecommunications services in the U.S. The FCC did at least three main things here: It kicked China Telecom out of the U.S. telecommunications market, it detailed specific national security and cybersecurity risks the company poses, and it more broadly signaled the U.S. government’s concern about Chinese technology firms under Beijing’s control. But the move also highlighted that there are many security risks at play with respect to certain foreign telecommunications companies, and mitigating one of those risks still leaves other risks in play. When Beijing-controlled telecoms reach into U.S. borders, the key is developing a robust, standardized national security review process focused on identifying discrete risks.

Read the full article [here](#).

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## **SUSPECTED RUSSIAN ACTIVITY TARGETING GOVERNMENT AND BUSINESS ENTITIES AROUND THE GLOBE**

***Luke Jenkins, Sarah Hawley, Parnian Najafi, & Doug Bienstock | Mandiant | December 6, 2021***

As the one-year anniversary of the discovery of the SolarWinds supply chain compromise passes, Mandiant remains committed to tracking one of the toughest actors we have encountered. These suspected Russian actors practice top-notch operational security and advanced tradecraft. However, they are fallible, and we continue to uncover their activity and learn from their mistakes. Ultimately, they remain an adaptable and evolving threat that must be closely studied by defenders seeking to stay one step ahead. Mandiant continues to track multiple clusters of suspected Russian intrusion activity that have targeted business and government entities around the globe. Based on our assessment of these activities, we have identified two distinct clusters of activity, UNC3004 and UNC2652. We associate both groups with UNC2452 also referred to as Nobelium by Microsoft.

Read the full article [here](#).

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## **CLARIVATE AND THE CHINESE ACADEMY OF SCIENCES RELEASE ANNUAL JOINT REPORT TO IDENTIFY 171 RESEARCH FRONTS**

***Clarivate | December 8, 2021***

Clarivate Plc (NYSE: CLVT), a global leader in providing trusted information and insights to accelerate the pace of innovation, and the Chinese Academy of Sciences (CAS) today released “Research Fronts 2021” report, to identify the hottest and emerging areas in the world of scientific research. This is the eighth annual collaborative report between the two parties and it was launched at a joint forum today in Beijing. “Research Fronts 2021” identified 171 research fronts, including 110 hot and 61 emerging fronts in 11 broad research areas in sciences and social sciences. Research Fronts are formed when clusters of highly cited papers are frequently cited together, reflecting a specific commonality in the research – sometimes experimental data, a method, a concept or a hypothesis. Around one third of the Research Fronts identified this year are related to COVID-19. These include six among the top 10 Research Fronts in clinical medicine and three among the top 10 Research Fronts in biological sciences.

Read the full article [here](#).



## **CHINA IS USING OUR OWN TECHNOLOGY AGAINST US – THIS IS HOW WE FIGHT BACK**

**John Katko | Fox News | December 6, 2021**

China's recent test of a nuclear-capable hypersonic missile was largely condemned, but few stopped to question exactly how China got its hands on this technology. For years, the People's Republic of China (PRC) has sought to undermine American intellectual property by targeting our academic institutions, conducting cyber espionage, and forcing the transfer of technology. In a clear escalation of this malign behavior, the hypersonic weapon tested recently by the PRC appears to have been created in part with American technology obtained through a variety of shady business deals and technology transfer schemes. The capabilities gap between China and the United States is closing every day, and we cannot afford to stand on the sidelines. America remains a global superpower because of our unmatched ability to innovate. When American research and development is compromised, it threatens our economic and national security. That's why I'm gravely concerned about our academic research being exfiltrated and repurposed by adversarial nations.

Read the full article [here](#).

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## **BEIJING'S STRATEGIC BLUEPRINT IS CHANGING AS TENSIONS GROW**

**Ryan Fedasiuk and Emily Weinstein | Foreign Policy | December 3, 2021**

The Chinese Communist Party (CCP) has constructed a strategy that is predicated on both passively absorbing and actively acquiring technology from abroad. Although the tech outflow from the United States to China has undercut U.S. national security, stymying it is easier said than done—and Beijing's playbook is evolving in response to heightening tensions between the two countries. In a new framework we're calling "E.P.I.C.," we attempt to lay out the four key resources at the heart of U.S.-China competition today. These resources—equipment, personnel, information, and capital—represent the foundational tools that China uses in its push to amass comprehensive national power. The first resource is equipment—most notably, advanced computer chips and the billion-dollar machines that make them. Beijing's reliance on imported technologies extends well beyond foreign-designed semiconductors, including lidar systems for self-driving cars, engine housings for commercial aircraft, and reagents for gene editing kits, among others. However, despite its multibillion-dollar efforts to boost domestic production in many of these key fields, China still has a long way to go to produce them domestically.

Read the full article [here](#).

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## **BEIJING WARNS CHINA-LINKED US BUSINESSES: YOU CANNOT 'MAKE A FORTUNE IN SILENCE'**

**Helen Davidson | The Guardian | December 2, 2021**

Beijing has urged US business groups with interests in China to "speak out" and lobby the US government in its defence, warning that as bilateral relations deteriorate they cannot make money "in silence". The vice-foreign minister Xie Feng, in charge of managing China's relationship with the US, also urged against political boycotts of the upcoming Beijing Winter Olympics, saying it harms the interests of athletes and was "unpopular". Key business groups including the American Chamber of Commerce in Shanghai and the US-China Business Council, met Xie at a virtual forum on Tuesday, according to a transcript of his address. In his address, published by the ministry of foreign affairs, Xie urged the US business representatives to "speak up and speak out, and push the US government to pursue a rational and pragmatic policy towards China, stop conducting wars in trade, industry and technology, and stop creating ... ideological and geopolitical confrontations and conflicts".

Read the full article [here](#).



## **WILL CHINESE STUDENTS CONTINUE TO WANT TO STUDY ABROAD?**

**Nicholas Chu | University World News | December 4, 2021**

The pandemic shook up the higher education industry, particularly when it came to welcoming international students. And for universities in the United States and United Kingdom, the greatest source of opportunity comes from the country with the largest population on the planet: China. In the past decade, China has seen a nearly 48% increase in the number of undergraduate students enrolled locally in public colleges and universities. If Chinese students decide to study abroad, their number one choice is the United Kingdom (42%), followed closely by the United States (37%). Over the past 10 years, the US saw an astounding 191% increase in the number of international students from China, while the UK became the number one choice for Chinese students who want to study abroad. From tuition fees and housing to visas and services, the economic benefit for these countries is too great to ignore. But some would argue that the allure of studying abroad, particularly in the US and UK, is beginning to wane for Chinese citizens.

Read the full article [here](#).

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## **THE UK SPY CHIEF'S WARNING ABOUT CHINA'S "DATA TRAPS" HIGHLIGHTS DIGITAL SUPPLY-CHAIN RISKS**

**Mary Hui | Quartz | December 2, 2021**

The head of the UK's intelligence services this week warned of China's "debt traps and data traps." The former is a phrase familiar (and also controversial) to many, referring to Beijing's use of loans and aid to advance its agenda globally. The latter is new. Richard Moore, the MI6 chief, explained the idea as follows: "If you allow another country to gain access to really critical data about your society, over time that will erode your sovereignty, you no longer have control over that data." To Samantha Hoffman, a senior analyst at the Australian Strategic Policy Institute who has researched China's tech-enhanced authoritarianism extensively, the term "data traps" neatly describes the complex set of problems she has long been studying. "It's a useful way of encapsulating the problem—which in my view is that we, in democracies, aren't aware that data is strategically valuable, and what that means," she said, adding that this is the first time she has come across the phrase "data traps."

Read the full article [here](#).

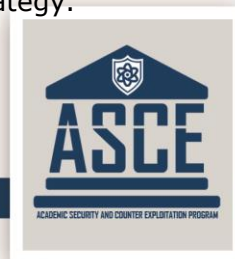
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## **WHAT DOES GLOBAL COLLABORATION MEAN FOR HIGHER EDUCATION?**

**Vicki Stott | University World News | December 4, 2021**

The great inventor Alexander Graham Bell is quoted as saying: "Great discoveries and improvements invariably involve the cooperation of many minds." The fact that the telephone, famously credited to Bell, built on the work of many inventors working in the field of telephony is no coincidence. It is this coming together of minds that has led to many great achievements across modern society, including in higher education. For an individual higher education institution, engagement and input from a wide variety of stakeholders helps to ensure its success in providing a high-quality education to its students. Institutions also benefit from collaboration beyond the four walls – a range of other stakeholders such as employers, professional, statutory and regulatory bodies (PSRBs) and community partners influence and shape course design, contribute to research activity and support institutions in fulfilling their wider missions. At a sector level, sector bodies, agencies, funders, regulators and political stakeholders all play an important role in setting the strategic direction of higher education and developing policy to underpin this strategy.

Read the full article [here](#).



## **KEEPING THE WRONG SECRETS: HOW WASHINGTON MISSES THE REAL SECURITY THREAT**

**Oona A. Hathaway | Foreign Affairs**

The United States keeps a lot of secrets. In 2017, the last year for which there are complete data, roughly four million Americans with security clearances classified around 50 million documents at a cost to U.S. taxpayers of around \$18 billion. For a short time, I was one of those four million. From 2014 to 2015, I worked for the general counsel of the Department of Defense, a position for which I received a security clearance at the "top secret" level. I came into the job thinking that all the classified documents I would see would include important national security secrets accessible only to those who had gone through an extensive background check and been placed in a position of trust. I was shocked to discover that much of what I read was in fact not all that different from what was available on the Internet.

Read the full article [here](#).

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## **RESEARCHERS PROPOSE A SIMPLER DESIGN FOR QUANTUM COMPUTERS**

**McKenzie Prillaman | Science X | November 29, 2021**

Today's quantum computers are complicated to build, difficult to scale up, and require temperatures colder than interstellar space to operate. These challenges have led researchers to explore the possibility of building quantum computers that work using photons—particles of light. Photons can easily carry information from one place to another, and photonic quantum computers can operate at room temperature, so this approach is promising. However, although people have successfully created individual quantum "logic gates" for photons, it's challenging to construct large numbers of gates and connect them in a reliable fashion to perform complex calculations.

Read the full article [here](#).

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## **UK SPY CHIEF: 'THE RISK OF CHINESE MISCALCULATION THROUGH OVERCONFIDENCE IS REAL'**

**Sam Shead | CNBC | December 1, 2021**

Richard Moore, the chief of British secret intelligence service MI6, is concerned that China could make a "miscalculation" due to overconfidence in its own global status. "The tectonic plates are shifting as China's power and its willingness to assert it grows," Moore said Tuesday in his first public speech since he took over as the head of the spy agency last October. The speech was at given Arundel House in London as part of an event organized by the International Institute for Strategic Studies think tank. "Beijing believes its own propaganda about Western frailties and underestimates Washington's resolve," added Moore, who joined the spy agency 34 years ago. "The risk of Chinese miscalculation through overconfidence is real." The Chinese embassy in London did not immediately respond to a CNBC request for comment on Moore's speech.

Read the full article [here](#).

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