ACADEMIC SECURITY AND COUNTER EXPLOITATION PROGRAM

https://asce.tamus.edu

THE OPEN SOURCE
MEDIA SUMMARY

August 11, 2022

CYBERATTACK 'ILLUMINATES' SHAKY STATE OF STUDENT PRIVACY IN THE US

Natasha Singer | Business Standard | August 2, 2022

The software that many school districts use to track students' progress can record extremely confidential information on children: "Intellectual disability." "Emotional Disturbance." "Homeless." "Disruptive." "Defiance." "Perpetrator." "Excessive Talking." "Should attend tutoring." Now these systems are coming under heightened scrutiny after a recent cyberattack on Illuminate Education, a leading provider of student-tracking software, which affected the personal information of more than a million current and former students across dozens of districts — including in New York City and Los Angeles, the nation's largest public school systems. Officials said in some districts the data included the names, dates of birth, races or ethnicities and test scores of students. At least one district said the data included more intimate information like student tardiness rates, migrant status, behavior incidents and descriptions of disabilities. The exposure of such private information could have long-term consequences." If you're a bad student and had disciplinary problems and that information is now out there, how do you recover from that?" said Joe Green, a cybersecurity professional and parent of a high school student in Erie, Colo., whose son's high school was affected by the hack.

Read the full article here.

HOW THE U.S. LOST THE NEXT BIG THING TO CHINA — AGAIN

Courtney Flatt and Laura Sullivan | MPR News | August 3, 2022

When a group of engineers and researchers gathered in a warehouse in Mukilteo, Wash., 10 years ago, they knew they were onto something big. They scrounged up tables and chairs, cleared out space in the parking lot for experiments and got to work. They were building a battery — a vanadium redox flow battery — based on a design created by two dozen U.S. scientists at a government lab. The batteries were about the size of a refrigerator, held enough energy to power a house, and could be used for decades. The engineers pictured people plunking them down next to their air conditioners, attaching solar panels to them, and everyone living happily ever after off the grid. "It was beyond promise," said Chris Howard, one of the engineers who worked there for a U.S. company called UniEnergy. "We were seeing it functioning as designed, as expected." But that's not what happened. Instead of the batteries becoming the next great American success story, the warehouse is now shuttered and empty. All the employees who worked there were laid off. And more than 5,200 miles away, a Chinese company is hard at work making the batteries in Dalian, China.

Read the full article here.

CHINA TARGETS ISRAELI TECHNOLOGY IN QUEST FOR GLOBAL DOMINANCE AS U.S. FRETS

Didi Kirsten Tatlow | Newsweek | August 10, 2022

This story is the first in Newsweek's "Covert China" series exploring how China is working to expand its influence in order to achieve global preeminence by 2049. The Tel Aviv political scientist was skeptical about the message that popped up on his social media feed offering attractive rewards if he came to work in China. "I just ignored it," he told Newsweek. "It was kind of funny." Yet the message from the Zhejiang Torch Center in Hangzhou was completely serious—part of a multiyear, multi-prong effort by the Communist Party of China (CCP) to transfer human talent and top technology to fuel its "China Dream" of global preeminence by 2049, the 100th anniversary of the Communist revolution. In messages on WeChat, China's main social media app, "Casey Xu" presented himself as an "international recruiter." Xu shared examples of people from "past projects" identified only by a three-letter country code and three-digit number.

Read the full article here.

WESTERN ELECTRONICS AT THE HEART OF RUSSIA'S WAR MACHINE

Royal United Services Institute (RUSI) | In Partnership with Reuters | 2022

On the evening of 29 July, Russian rockets hit the southern Ukrainian city of Mykolaiv, killing five people and injuring another seven. The Ukrainian military states that the city came under attack from the Tornado-S multiple rocket launcher system. Images of the aftermath show damage to a number of residential buildings. The control module from one of these 300mm rockets was discovered relatively intact in the middle of a children's playground. Earlier this year, RUSI staff conducting fieldwork in Ukraine inspected a recovered control module from the same rocket system, which possesses a sophisticated onboard satellite-guidance system to ensure that the rocket is accurate up to a range of 120 km. A close examination of the satellite-guidance system revealed that several of its critical microelectronics were produced by US companies. On the evening of 29 July, Russian rockets hit the southern Ukrainian city of Mykolaiv, killing five people and injuring another seven. The Ukrainian military states that the city came under attack from the Tornado-S multiple rocket launcher system.

Read the full article here.

CHIPS AND SCIENCE ACT OF 2022 – SECTION-BY-SECTION SUMMARY

2022

In order to support the rapid implementation of the semiconductor provisions included in the Fiscal Year ("FY") 2021 National Defense Authorization Act ("NDAA"), this division would provide $52.7 billion in emergency supplemental appropriations. The language would also re-affirm that the purchase of stocks and dividends are not an eligible use of CHIPS funds as determined by the eligible use of funds already required under the FY21 NDAA. Funded activities include: $50.0 billion allocated over 5 years for a CHIPS for America Fund. Funding must be used to implement the Commerce Department semiconductor incentive—to develop domestic manufacturing capability—and research and development ("R&D") and workforce development programs authorized by the FY21 NDAA (Sec. 9902 & 9906). Each fiscal year, up to 2 percent of funds are made available for salaries and expenses, administration, and oversight, of which $5 million is available each year for the inspector general. Within the fund, the following appropriations are available: Incentive Program: $39 billion allocated over 5 years to implement the programs authorized in Sec. 9902, of which $2 billion is explicitly provided to focus solely on legacy chip production to advance economic and national security interests.

Read the full article here.

RESEARCH SECURITY COMPLIANCE FOR ACADEMIC INSTITUTIONS

Dominick Gerace | Taft | August 9, 2022

Over the last few years, academic institutions were a primary focus of the Department of Justice's "China Initiative," a national security program implemented in 2018 to prevent and prosecute the theft of trade secrets and economic espionage by the Chinese government. As part of the initiative, federal prosecutors indicted university professors and researchers across the country. Despite the initiative's stated objective, many of these prosecutions were unrelated to the actual transfer of proprietary information and, instead, involved charges of fraud and false statements for failing to disclose alleged ties to Chinese academic institutions on federal grant forms and other paperwork. Following several acquittals and dismissals of charges, and faced with mounting criticism that these prosecutions resulted in a chilling effect on academic research while doing little to protect national security, the department terminated the China Initiative in February 2022. Although the end of the China Initiative may result in a refocusing of federal prosecutorial efforts, federal concerns regarding research security — and, specifically, transparency in federal grant applications — show no signs of waning.

Read the full article here.

CHIPS AND SCIENCE BILL WOULD BOOST SCIENCE FUNDING

Andrea Widener | Chemical & Engineering News (C&EN) | August 4, 2022

The US Congress has passed an innovation bill that would allow major increases in science funding for agencies. President Joe Biden plans to sign the bill on Aug. 9. A relatively rare reset of basic science funding and policy, the Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act is a combination of legislation that Congress and the science community have worked on for several years. It is aimed at improving US research competitiveness, primarily to keep up with China, which has vastly expanded its science and technology funding in recent years. The bill, also called CHIPS+, would authorize major funding increases for the National Science Foundation (NSF), the National Institute of Standards and Technology (NIST), and the Department of Energy's (DOE) Office of Science, as well as for science, technology, engineering, and mathematics (STEM) education. But authorizing funding increases is not the same as actually providing the money—Congress must do that as part of its annual budgeting process. CHIPS+ also includes policy guidance for agencies on issues as varied as helium shortages and sexual harassment.

Read the full article here.

INTELLECTUAL PROPERTY RIGHTS (IPR) AND INTERNATIONAL TRADE

Shayerah I. Akhtar and Liana Wong | Congressional Research Service | February 7, 2022

Protection and enforcement of intellectual property rights (IPR) are longstanding key components of U.S. trade policy. Congress has a constitutional responsibility to legislate on and oversee IPR matters in U.S. trade policy, which have evolved over time. The growing importance of emerging markets has introduced new views on IPR and challenges to enforcement. New technologies present distinct challenges to combating counterfeiting and piracy. Most recently, the Coronavirus Disease 2019 (COVID-19) pandemic is renewing debates about the role of IPR protections in providing global access to medicines. IP is defined as a creation of the mind embodied in physical and digital objects. Governments grant time-limited legal rights to creators to prevent others from making, copying, selling, or otherwise using their creations. Known as IPR, these rights can take different forms, such as patents, copyrights, trademarks, undisclosed data (trade secrets), and geographical indications (GIs).

Read the full article here.

THE WRONG WAY TO COMPETE WITH CHINA

Scott Moore | Lawfare | August 8, 2022

More than two years after it was first proposed, Congress has finally passed one of the most anticipated legislative efforts of the Biden presidency: a bipartisan bill to help the United States compete more effectively with China. The Creating Helpful Incentives to Produce Semiconductors for America (CHIPS) and Science Act, which is expected to soon be signed by President Biden, promises to invest tens of billions of dollars in public funds to develop advanced technologies—most notably to subsidize semiconductor manufacturing. Lawmakers on both sides of the aisle agree the act is sorely needed. Sen. Roger Wicker (R-Miss.) proclaimed that the CHIPS Act is "needed to outcompete China." Sen. Maria Cantwell (D-Wash.), meanwhile, explained her support for the bill by evoking the Cold War: "I believe this is a Sputnik moment, where it is clear to Americans that we are falling behind on innovation and we can't risk falling further behind." There is, however, one major problem with this ambitious, multibillion-dollar plan to compete with China on advanced technology: It won't work, at least not on its own. And, ironically, given that CHIPS Act champions have cited as an inspiration the Soviet Union's 1957 launch of Sputnik, the world's first artificial satellite, the U.S. response to that launch provides insight as to why the act risks failing to boost American innovation as much as its supporters hope.

Read the full article here.

THE LIMITING FACTOR OF "THE ENDLESS FRONTIER" IS STILL A HUMAN ONE

Shirley M. Malcom | Issues in Science and Technology | August 10, 2022

Vannevar Bush's Science, the Endless Frontier report has been invoked, quoted and misquoted, poked and dissected many times since its release in the summer of 1945, often to highlight its influence on science policy and its call for federal funding to be directed to the research enterprise through the nation's universities. The report bears rereading—not only to appreciate Bush's vision, but also to consider how that vision has been tested as it met the societal and political realities of the past 75 years. And, reading it with a different lens, I have found the report compelling for its messages on education and talent development, causing me to reflect on Bush's general failure to envision how diversity, equity, and inclusion apply within that endless frontier. In rereading the document, I was struck once again by the fact that Bush gave equal billing to setting up the infrastructure to support research and to addressing what one might call "people issues." One of the four advisory committees that Bush established was devoted to talent discovery and development. This 14-person, all-male committee considered many approaches, including drawing talent to science via scholarships for promising students and mobilizing talent through the education of returning veterans.

Read the full article here.