THE OPEN SOURCE MEDIA SUMMARY

https://asce.tamus.edu

November 23, 2022

CISA AND FBI RELEASE ADVISORY ON IRANIAN GOVERNMENT-SPONSORED APT ACTORS COMPROMISING FEDERAL NETWORK

U.S. Cybersecurity & Infrastructure Security Agency | November 16, 2022

Today, CISA and the Federal Bureau of Investigation (FBI) published a joint Cybersecurity Advisory (CSA), Iranian Government-Sponsored APT Actors Compromise Federal Network, Deploy Crypto Miner, Credential Harvester. The CSA provides information on an incident at a Federal Civilian Executive Branch (FCEB) organization in which Iranian government-sponsored APT actors exploited a Log4Shell vulnerability in unpatched VMware Horizon server. The CSA includes a malware analysis report (MAR), MAR-10387061-1-v1 XMRig Cryptocurrency Mining Software, on the mining software that the APT actors used against the compromised FCEB network. The CSA also provides tactics, techniques, and procedures (TTPs) and indicators of compromise (IOCs) obtained from the incident response as well as recommended mitigations. CISA and FBI strongly recommend organizations apply the recommended mitigations and defensive measures, which include: Updating affected VMware Horizon and unified access gateway (UAG) systems to the latest version; Minimizing your organization's internet-facing attack surface; Exercising, testing, and validating your organization's security program against the threat behaviors mapped to the MITRE ATT&CK for Enterprise framework in the CSA.

Read the full article here.

ZERO-TRUST INITIATIVES STALL, AS CYBERATTACK COSTS ROCKET TO $1M PER INCIDENT

Nathan Eddy | Dark Reading | November 17, 2022

Researchers find current data protections strategies are failing to get the job done, and IT leaders are concerned, while a lack of qualified IT security talent hampers cyber-defense initiatives. Organizations are struggling with mounting data losses, increased downtime, and rising recovery costs due to cyberattacks — to the tune of $1.06 million in costs per incident. Meanwhile, IT security staffs are stalled on getting defenses up to speed. That's according to the 2022 Dell Global Data Protection Index (GDPI) survey of 1,000 IT decision-makers across 15 countries and 14 industries, which found that organizations that experienced disruption have also suffered an average of 2TB data loss and 19 hours of downtime. Most respondents (67%) said they lack confidence that their existing data protection measures are sufficient to cope with malware and ransomware threats. A full 63% said they are not very confident that all business-critical data can be reliably recovered in the event of a destructive cyberattack.

Read the full article here.

A NEW BOOK OF ESSAYS PROVIDES INSPIRING SCIENCE, TECHNOLOGY IDEAS THAT CAN TRANSFORM SOCIETY

Dolores Tropiano | ASU News | November 10, 2022

Featured writers in a new book were given a major mission — to envision future science policies and share them with the world. "The Next 75 Years of Science Policy" presents a wide range of visions for how science might serve society in the coming years. Released in September, the book showcases a collection of nearly 50 powerful essays that authors hope will provide inspiring ideas that can transform society. "The essays presented a kind of a kaleidoscope of how to use the resources of science over the coming century," said Lisa Margonelli, editor-in-chief for Issues in Science and Technology, which originally published the essays. "Some writers wanted to change a basically successful system by giving it a few tweaks. Others had really revolutionary ideas." The volume has a forward-looking theme, with everyone from scientists and government officials to up-and-coming researchers and business leaders contributing their public policy ideas for the future. Lindy Elkins-Tanton, vice president of the Arizona State University Interplanetary Initiative, contributed the essay "Time to Say Goodbye to Our Heroes?"

Read the full article here.

CHINA TOPS U.S. TO TAKE RESEARCH CROWN AT GLOBAL CHIP CONFERENCE

Yuki Okoshi | Nikkei Asia | November 18, 2022

China has submitted the most research papers accepted at a prestigious international academic conference focused on semiconductors, underscoring the country's growing presence in the field and bumping the U.S. into second place. This is the first time China has taken the top spot in papers accepted by the International Solid-State Circuits Conference (ISSCC), which is considered the Olympics of the semiconductor sector. The annual event opens in February in San Francisco. Universities and companies in China -- including Hong Kong and Macao -- submitted 59 papers, or 29.8% of all 198 research documents accepted by the ISSCC for the 2023 event. At the previous conference held this February, 29 papers from China were accepted, or 14.5% of the total. The ISSCC accepted 40 papers from the U.S., dropping the country from first place this year to second. The U.S. share of all papers shrank to 20.2% from 35%. South Korea ranked third and Taiwan fourth, while Japan and the Netherlands tied for fifth. Universities in greater China are driving research into semiconductors. The University of Macau had 15 papers accepted, while Beijing's Tsinghua University and Peking University produced 13 and six papers, respectively.

Read the full article here.

INTERNATIONAL STUDENTS AND AMERICAN COMPETITIVENESS

Association of American Universities and Business Roundtable | 2022

As the organizations representing the presidents of America's leading research universities and the chief executive officers of America's leading companies, the Association of American Universities and Business Roundtable recognize that the United States' continued global competitiveness depends on developing, attracting and retaining top international science, technology, engineering and math (STEM) talent. International students, scientists and engineers help drive cutting-edge research and development, fill job openings in critical STEM fields, advance national security and bolster the U.S. economy by generating new domestic startups and businesses. To ensure that America's doors remain open to international talent, this report will highlight the importance of the international talent pipeline and examine the symbiotic relationship between academic institutions in the United States and the business community.

Read the full article here.

DECLINE IN CHINESE STUDENT MOBILITY: IT'S ONLY TEMPORARY

Gavin Palmer and Wei Liu | University World News | November 12, 2022

Against some gloomy future predictions about Chinese students' outbound mobility, we forecast that Chinese students' drive to study overseas will stay strong due to strong 'push' factors in China, including economic factors, a competitive system, the value placed on intercultural learning and, more importantly, the Chinese educational culture. The current drop in numbers is temporary, mainly due to concerns over COVID. One important reason behind the gloomy predictions for Chinese educational mobility is the forecasted slow growth in the Chinese economy over the next decade, if not the possibility of an immediate bust. Geopolitical tensions and the trade war with the United States do not help. However, Chinese doomsayers have been around for a long time and they have been proven wrong so far. The Chinese system has shown itself to be resilient and adaptable, perhaps more so than the Western system. Of course, no country can grow its GDP at an annual rate of 10% forever, not even the Chinese, but even a small positive growth every year would be very good news for international education.

Read the full article here.

JOINT CYBERSECURITY ADVISORY TLP CLEAR: #STOPRANSOMWARE: HIVE RANSOMWARE

U.S. Joint Cybersecurity Advisory | November 17, 2022

This joint Cybersecurity Advisory (CSA) is part of an ongoing #StopRansomware effort to publish advisories for network defenders that detail various ransomware variants and ransomware threat actors. These #StopRansomware advisories include recently and historically observed tactics, techniques, and procedures (TTPs) and indicators of compromise (IOCs) to help organizations protect against ransomware. Visit stopransomware.gov to see all #StopRansomware advisories and to learn more about other ransomware threats and no-cost resources. The Federal Bureau of Investigation (FBI), the Cybersecurity and Infrastructure Security Agency (CISA), and the Department of Health and Human Services (HHS) are releasing this joint CSA to disseminate known Hive IOCs and TTPs identified through FBI investigations as recently as November 2022. FBI, CISA, and HHS encourage organizations to implement the recommendations in the Mitigations section of this CSA to reduce the likelihood and impact of ransomware incidents. Victims of ransomware operations should report the incident to their local FBI field office or CISA.

Read the full article here.

A GLOBAL RESEARCH FUNDING NETWORK IS ONLY A PEN STROKE AWAY

Adrian Collins and Maria Roitman | University World News | November 7, 2022

International collaboration is critical to global efforts to address shared challenges, to the impact that research makes in our communities and to the careers of the researchers themselves. As the primary drivers of international cooperation, though, researchers face a real and long-standing funding barrier. With some notable exceptions, national governments and funders typically take the stance of 'money doesn't cross borders' for academic research. This stance is often inconsistent with other government initiatives that facilitate international trade and development. Unfortunately, it also makes jointly funded bilateral and multilateral research programmes clunky, burdensome and relatively small in scale. Research councils need to acknowledge these deficiencies and counter them by reforming their funding rules and 'opening up' to create a global mechanism for international collaboration that is more flexible, efficient and impactful.

Read the full article here.

REPORT MAPS 'HUGE' SHIFTS IN INTERNATIONALISATION ON CAMPUSES

Nathan M. Greenfield | University World News | November 8, 2022

When compared with 2016-20 data, the COVID-19 crisis of 2020-21 caused a drop of 24 percentage points – from 64% to 40% – in university and college administrators who said the overall level of their institution's internationalisation was "very high", "high" or "moderate", says a just released study by the American Council on Education (ACE). The survey of 903 colleges and universities found the percentage of institutions reporting that internationalisation was a "low" priority grew by one-third to 32%, while those considering internationalisation a "very low" priority almost doubled to 28%. The decline documented in ACE's report, Mapping Internationalization on US Campuses: 2022 edition, accords with data released by the National Student Clearinghouse Research Center (NSCRC) a few weeks ago. NSCRC found that between fall 2020 and fall 2022, there were 8.4% fewer international students on America's campuses. The greatest decline, 17.2%, occurred in the public four-year institutions, the largest sector in American higher education.

Read the full article here.

U.S. FBI DIRECTOR SAYS TIKTOK POSES NATIONAL SECURITY CONCERNS

David Shepardson | Reuters | November 15, 2022

The U.S. operations of Chinese-owned TikTok raise national security concerns, FBI Director Chris Wray said on Tuesday, flagging the risk that the Chinese government could harness the video-sharing app to influence users or control their devices. Risks include "the possibility that the Chinese government could use [TikTok] to control data collection on millions of users or control the recommendation algorithm, which could be used for influence operations," Wray told U.S. lawmakers. Beijing could also use the popular app, owned by ByteDance, to "control software on millions of devices," giving it the opportunity to "technically compromise" those devices, he added. The U.S. government's Committee on Foreign Investment in the United States (CFIUS), which reviews U.S. acquisitions by foreign acquirers for potential national security risks, in 2020 ordered ByteDance to divest TikTok because of fears that U.S. user data could be passed on to China's communist government.

Read the full article here.

CHINA'S XI STACKS GOVERNMENT WITH SCIENCE AND TECH EXPERTS AMID RIVALRY WITH U.S.

Karen Hao | The Wall Street Journal | November 18, 2022

Chinese leader Xi Jinping has packed the top ranks of the Communist Party with a new generation of leaders who have experience in aerospace, artificial intelligence and other strategically important areas, as Beijing seeks to become a science and technology superpower that rivals the U.S. The roster of officials with backgrounds in science and technology on the party's 205-member Central Committee has rebounded to roughly the length it had during former leader Jiang Zemin's first five-year term, beginning in 1992, when he kicked off a rapid acceleration of scientific research and innovation. The increase comes as Washington takes steps both to contain China's tech sector and boost U.S. innovation. Chinese officials with technical expertise occupy 81 seats, nearly 40% of the total, in the new Central Committee—the elite body that decides major national policies—according to data compiled by the Washington-based Brookings Institution think tank and shared exclusively with The Wall Street Journal. That compares with less than 18% in the previous Central Committee.

Read the full article here.

CHANGING THE BUSINESS OF BREAKTHROUGHS

Regina Dugan and Kaigham J. Gabriel | Issues in Science and Technology | Summer 2022

History tends to turn scientific breakthroughs into stories of lone heroes in which individual researchers doggedly pursued a new discovery or charismatic leaders pointed to the horizon and made massive investments at scale. What these accounts miss, however, is the reality that solutions to complex problems—and the resulting breakthroughs—more often require a network of diverse contributors with the capacity to drive the work toward a common goal. It isn't only about applying resources; it's also about creating the structures required to deploy those resources to facilitate such a synchronized effort. What's needed to achieve more breakthroughs faster are new ways of working that systematically stack the odds in favor of success. A case in point has been the development of mRNA vaccines—arguably one of the most important scientific breakthroughs of recent decades. The trauma and upheaval of the past two years have laid bare how much work has to be done in health, equity, and care for the planet. These years have also revealed the difference a single breakthrough can make.

Read the full article here.

WHAT FATE FOR CHINA'S CONFUCIUS INSTITUTES UNDER NEW PM?

Yojana Sharma | University World News | November 20, 2022

Originally set up to promote Chinese language and culture and project China's 'soft power', China's Confucius Institutes have come under close scrutiny in the United Kingdom, with prominent politicians calling for all institutes at British universities to be closed. However, their fate is not yet sealed. A bill on planned curbs on influence operations by foreign governments making its way through the British parliament could have an impact, despite a perceived softening of the government's stand on China under the country's new Prime Minister Rishi Sunak. According to Andreas Fulda, associate professor at Nottingham University and an expert on Europe-China relations, universities in the UK "are a bit stalled now" on the issue of Confucius Institutes. "There is a wait-and-see attitude in British universities in terms of [waiting for] what the government will say," he told University World News. Frequent changes at the head of government – the UK has had three prime ministers since September – have contributed to uncertainty for universities. Liz Truss, who took over for a brief period from Boris Johnson as prime minister in September before being replaced by Rishi Sunak last month, was noticeably hawkish on China.

Read the full article here.

THE TEXAS A&M
UNIVERSITY SYSTEM

ASCE
ACADEMIC SECURITY AND COUNTER EXPLOITATION PROGRAM