



ACADEMIC SECURITY AND COUNTER EXPLOITATION PROGRAM

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# THE OPEN SOURCE MEDIA SUMMARY

**March 16, 2022**

## **WESTERN NATIONS CUT TIES WITH RUSSIAN SCIENCE, EVEN AS SOME PROJECTS TRY TO REMAIN NEUTRAL**

*Richard Stone | Science | March 8, 2022*

In 2011, Russia signed a deal that would pay the Massachusetts Institute of Technology (MIT) \$300 million to help found the Skolkovo Institute of Science and Technology (Skoltech), an English-language research university on the outskirts of Moscow. Dozens of researchers from around the world leaped at the chance for a foreign assignment, which they thought would help mend lingering rifts from the Soviet era, while boosting innovation in a place aspiring to be Russia's Silicon Valley. "It was a very exciting time," says Ed Seidel, a computer scientist and current president of the University of Wyoming, who was tasked with building up Skoltech's research capacity. Citing "the Russian government's violent invasion of a peaceful neighbor," MIT on 25 February dissolved its partnership with Skoltech, 1 day after President Vladimir Putin began a bloody war with Ukraine. The decision had a personal echo for MIT President L. Rafael Reif, who in a statement says his parents fled the western Ukraine-Moldova region on the eve of World War II. MIT's withdrawal only affects a handful of faculty and students, but it will still be an enormous loss of prestige, says Skoltech Provost Keith Stevenson, an electrochemist who moved to Russia from the University of Texas, Austin, to establish a center for energy storage technology.

Read the full article [here](#).

## **COLLABORATION DRIVES SUCCESS FOR LEADING SCIENCE NATIONS**

*Bec Crew | Nature | March 9, 2022*

Few nations have the scientific firepower to bring together the minds, money and machines needed for the most precise measurement yet of the neutrino's mass. But Germany did, with the results of its Karlsruhe Tritium Neutrino (KATRIN) experiment announced in February. Japan hopes to achieve similar breakthroughs with its planned US\$600-million Hyper-Kamiokande, set to be the largest neutrino detector of its kind ever built. Success would cement the country's place not just in experimental physics research, but in the kind of large-scale international collaboration it needs to help reverse the slide in its Share, a measure of research performance based on output in the 82 natural-science journals tracked by the Nature Index. As research endeavours become increasingly complex, the world's science superpowers will need strong international ties to retain their edge. This supplement explores examples of collaboration involving the leading five countries by Share in the Nature Index: the United States, China, Germany, the United Kingdom and Japan. Together these five countries were responsible for 69.4% of the total Share in the Index for the period 2015–21.

Read the full article [here](#).



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## SUPPLY CHAIN RISK MANAGEMENT

*The National Counterintelligence and Security Center*

NCSC works with its partners to assess and mitigate the activities of foreign intelligence entities and other adversaries who attempt to compromise the supply chains of our government and industry. These adversaries exploit supply chain vulnerabilities to steal America's intellectual property, corrupt our software, surveil our critical infrastructure, and carry out other malicious activities. They infiltrate trusted suppliers and vendors to target equipment, systems, and information used every day by the government, businesses, and individuals. The cost to our nation comes not only in lost innovation, jobs, and economic advantage, but also in reduced U.S. military strength.

Read the full article [here](#).

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## DARPA SCREENING FOR 'RISK' IN RESEARCHERS' FOREIGN AFFILIATIONS

*Mitch Ambrose | American Institute of Physics | February 15, 2022*

For over three years, the Department of Defense has been responding to congressional direction aimed at securing the research it funds from potential exploitation by rival governments. While many federal agencies have stepped up their research security efforts, DOD's moves have generally been more expansive, both because they extend to the protection of R&D geared toward military applications, and because Congress has given the department additional mandates. Now, the Defense Advanced Research Projects Agency is implementing a "Countering Foreign Influence Program" that involves assessing risks posed by researchers' affiliations with foreign institutions, even for unclassified projects in fundamental research. While other science agencies have likewise expanded their use of disclosure policies to identify problematic conflicts of interest and time commitment, DARPA's policy goes further by tying the review process to specific categories of foreign entities of concern. Although DARPA stresses that projects deemed to carry high risk can still proceed with the appropriate approval, many stakeholders are seeking more clarity on the kinds of affiliations DARPA and other science agencies might deem problematic. DARPA Director Stefanie Tompkins announced the Countering Foreign Influence Program in a memorandum issued in September 2021.

Read the full article [here](#).

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## IN A NEW COLD WAR, ACADEMIC ENGAGEMENT IS STILL NECESSARY

*Philip G. Altbach, Hans de Wit, and Jamil Salmi | University World News | March 12, 2022*

In the context of Russian President Vladimir Putin's current brutal invasion and war on Ukraine, it is difficult, but essential, to consider the present and future of higher education and scientific relations between Russia and the rest of the world. While formal education and research collaboration and other academic relations with official representatives and organisations affiliated with the Russian government should be paused, we should start thinking about a longer-term perspective as well. Over the past decades, the three of us have had regular contact with Russian higher education, including participation in, and advice to, government-funded initiatives. We have always done so with a critical eye and in the interest of international academic collaboration. The primary focus of our activities has been to work closely with students and scholars, providing them, and ourselves, with an opportunity for cooperation that was as autonomous as possible from political interference. In the current context, it is clear that participation in government-controlled and -funded activities with Russia needs to be stopped immediately and that solidarity and support must be primarily focused on Ukraine, especially in light of the shameful declaration of support for the war published by the Russian Union of Rectors.

Read the full article [here](#).



## **SECURING EMERGING TECHNOLOGIES WITHOUT HAMPERING INNOVATION: PRIVATE SECTOR CHALLENGES**

*Gregory R. Gonzalez, Wilkinson Barker Knauer | Cybersecurity Law Report | March 9, 2022*

Emerging technologies have the prospect of enhancing our world in ways that we have yet to imagine. Several core technological advancements in areas such as 5G, quantum computing, and artificial intelligence/machine learning will allow people to interact with their surroundings in new ways, enhancing professional and personal opportunities, increasing our economic prosperity, and making our nation more secure. In just a few years, it is possible that we will be liberated from certain daily obligations, allowing us to pursue those things that we value most. Autonomous vehicles could soon safely drive us on our daily commute and on family road trips. IoT devices may help us manage our homes more efficiently. Intelligent machines can make mundane work tasks a thing of the past. We have already seen this progression unfolding. This is an amazing opportunity, but with it comes immense security challenges that threaten to disrupt our ability to use technology as it is intended – for the good of humanity.

Read the full article [here](#).

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## **US INTELLIGENCE VIEWS CHINA AS ‘UNPARALLELED’ LONG-TERM PRIORITY**

*Jerry Dunleavy | Washington Examiner | March 9, 2022*

The Chinese Communist Party remains the “absolutely unparalleled” long-term priority for the U.S. intelligence community. Director of National Intelligence Avril Haines made the comment to Congress on Tuesday following the release of the annual threat assessment report at a time when Russia’s invasion of Ukraine has become a leading point of national security distress for the United States and the rest of the world. The Office of the Director of National Intelligence’s report, released to the public late Monday, warned that “China increasingly is a near-peer competitor, challenging the United States in multiple arenas — especially economically, militarily, and technologically — and is pushing to change global norms and potentially threatening its neighbors.” China, the report said, “will remain the top threat to U.S. technological competitiveness as Beijing targets key sectors and proprietary commercial and military technology from U.S. and allied companies.”

Read the full article [here](#).

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## **EUROPEAN UNION HALTS SCIENTIFIC COOPERATION WITH RUSSIA**

*Brendan O'Malley | University World News | March 5, 2022*

The European Commission has decided to halt cooperation with Russian entities in research, science and innovation in response to the Russian invasion of Ukraine, it announced on 4 March. As a result, the Commission will not conclude any new contracts nor any new agreements with Russian organisations under the European Union’s flagship €95.5 billion research and innovation funding programme, Horizon Europe. In addition, the Commission is suspending payments to Russian entities under existing contracts. All ongoing projects, in which Russian research organisations are participating, are being reviewed – both under Horizon Europe and Horizon 2020, the previous EU programme for research and innovation. Since the Commission’s announcement, the situation in Ukraine has deteriorated further, with Russian troops seizing the country’s largest nuclear power plant, and shelling and bombarding a number of cities. Margrethe Vestager, executive vice-president for a Europe fit for the Digital Age, said: “EU research cooperation is based on the respect for the freedoms and rights that underpin excellence and innovation. Russia’s heinous military aggression against Ukraine is an attack against those same values. It is therefore time to put an end to our research cooperation with Russia.”

Read the full article [here](#).



## CHINA OUTPACING U.S. IN KEY SCIENCE METRICS

Yasmin Tadjdeh | National Defense NDIA's Business & Technology Magazine | March 11, 2022

China is pulling ahead of the United States when it comes to key indicators of science and engineering prowess, the National Science Board is warning. "S&E investments and capabilities are growing globally and, in some cases, the growth in other countries has outpaced that of the U.S.," said Ellen Ochoa, chair of the board. The nation is falling behind China in important areas such as growth in research-and-development investment, the manufacturing of critical emerging technologies and patents for innovative systems, according to the National Science Board's "State of U.S. Science and Engineering 2022" report. "The United States' role as the world's foremost performer of R&D is changing as Asia continues to increase its investments," the study said. "Growth in R&D and S&T output by other countries, including China, outpaced that of the United States. Consequently, even as U.S. R&D has increased, the U.S. share of global R&D has declined, and the relative position of the United States in some S&T activities has either not changed or decreased even as absolute activities increased." T

Read the full article [here](#).

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## US COLLEGES CUT PARTNERSHIPS, FINANCIAL TIES WITH RUSSIA

Collin Binkley | Associated Press News | March 10, 2022

Colleges across the U.S. are pulling students from study abroad programs in Russia, ending research partnerships and cutting financial ties as part of a global wave of condemnation over the invasion of Ukraine. At the same time, colleges have promised to support Russian students on their campuses, opposing calls from a few in Congress to remove them from the country as a sanction against their homeland. The moves are mostly symbolic — U.S. colleges have little power to sway Russia or squeeze its finances, and academic exchange between the nations has always been meager. But the suggestion that some or all Russian students should forfeit the opportunity to study here has drawn new attention to the role of universities in global disputes. Last academic year, U.S. colleges hosted nearly 5,000 students from Russia, less than 1% of all international students. Advocates for international education say losing those students would forgo a chance to expose them to western ideals, and they say Russians who choose to study in America are already more likely to want change back home. "Leaders need to make a distinction between Putin and Russian people who want a better life," said Jill Welch, a senior adviser for the Presidents' Alliance on Higher Education and Immigration, a coalition of university presidents.

Read the full article [here](#).

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## GOOD NEWS: CRISIS MANAGEMENT IS ACTUALLY NOT AN OXYMORON

Simon Barker | University World News | March 12, 2022

Despite daily headlines suggesting otherwise, it can be heartening to learn that crisis management is actually not an oxymoron. In fact, it is possible to not just survive a crisis but to emerge stronger as an organisation simply due to the way the crisis was handled. Why? Because the effectiveness of the response is the largest single determining factor in the impact of a crisis on the reputation of an institution and how quickly, if ever, it recovers. This is great news. It means that you and your team are not helpless in the face of a crisis and that, through effective and proactive management, it is possible to significantly limit the impact of the issue or event, strengthen your leadership team's credibility and burnish the reputation of your institution. Doing so, however, requires a renewed recognition of the importance of reputational risk, an understanding of how to protect it and – importantly – a realignment of management culture and process that links decision-making to institutional values. Reputational risk occurs when there is a significant disconnect between an organisation's actions and decisions and the expectations of its stakeholders.

Read the full article [here](#).



## **RUSSIA SAYS ITS BUSINESSES CAN STEAL PATENTS FROM ANYONE IN ‘UNFRIENDLY’ COUNTRIES**

*Hannah Knowles and Zina Pozen | The Washington Post | March 9, 2022*

Russia has effectively legalized patent theft from anyone affiliated with countries “unfriendly” to it, declaring that unauthorized use will not be compensated. The decree, issued this week, illustrates the economic war waged around Russia’s invasion of Ukraine, as the West levies sanctions and pulls away from Russia’s huge oil and gas industry. Russian officials have also raised the possibility of lifting restrictions on some trademarks, according to state media, which could allow continued use of brands such as McDonald’s that are withdrawing from Russia in droves. The effect of losing patent protections will vary by company, experts say, depending on whether they have a valuable patent in Russia. The U.S. government has long warned of intellectual property rights violations in the country; last year Russia was among nine nations on a “priority watch list” for alleged failures to protect intellectual property..

Read the full article [here](#).

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## **U.S. UNIVERSITIES EXIT ACADEMIC PARTNERSHIPS WITH RUSSIA OVER UKRAINE WAR**

*Susan Fournané | Fierce Education | March 9, 2022*

Following Massachusetts Institute of Technology (MIT) decision to end over a decade-long academic partnership with Russia, several colleges and universities have recently announced plans to cut ties with the country over military actions in Ukraine, with more expected to follow suit. In October 2011, MIT and the Russian government began a partnership which led to the creation of the Skolkovo Institute of Science and Technology in Moscow. The high-tech campus was a joint effort between MIT and Russia to “build a unique and pioneering academic center in Russia.” MIT notified Skoltech it was terminating the collaboration with the graduate research Russian institution on February 25. MIT President L. Rafael Reif in agreement with senior leadership decided to end the collaboration “in light of the unacceptable military actions against Ukraine by the Russian government.” In the statement published on the MIT Skoltech Program’s website, MIT announced that the decision is “a rejection of the actions of the Russian government in Ukraine.”

Read the full article [here](#).

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## **BUILDING A SOCIALLY RESPONSIBLE FUTURE THROUGH TECH INNOVATION**

*Times Higher Education | March 8, 2022*

Technology has the potential to be a positive, benevolent force – but regulation is hampering research and development. As societies transition to the new digital age, stakeholders find themselves grappling with common concerns around data protection and the ethical applications of new technology. At the 2021 Times Higher Education Innovation and Impact Summit, industry leaders considered what tools might be required to ensure that innovation in the field is done in a way that is morally just and socially responsible. Afke Schaart, senior vice-president for global government affairs at Huawei, spoke of her experiences working in Europe and Asia, and explained some of the cultural differences that can affect how innovation takes place. Asked what governments could do to create the right environment for innovation to thrive, Schaart said: “For me, it’s all about keeping the ecosystem open.” China, where Huawei is based, has a highly competitive research and development ecosystem, she explained, which made for greater innovation.

Read the full article [here](#).



# HARNESSED LIGHTNING - HOW THE CHINESE MILITARY IS ADOPTING ARTIFICIAL INTELLIGENCE

Ryan Fedasiuk, Jennifer Melot, and Ben Murphy | Center for Security and Emerging Technology  
October 2021

Artificial intelligence (AI) is progressing at lightning speed. What 10 years ago would have been considered science fiction—self-adapting computer algorithms with billions of parameters—is now a central focus of military and intelligence services worldwide. Owing in part to AI’s fast-paced development, most analyses of its military promise tend to focus more on states’ future aspirations than present-day capabilities. This is particularly true for the Chinese People’s Liberation Army (PLA), which has routinely made clear its desire to harness AI for military advantage, and which prefers to keep a close hold over its actual, technical capabilities. But as tensions mount between the United States and China, and some experts warn of an impending crisis over Taiwan, it is crucial that U.S. policymakers and defense planners understand the commercial off-the-shelf (COTS) AI technologies already available to the Chinese military. This report offers a detailed look at the PLA’s adoption of AI by analyzing 343 AI-related equipment contracts, part of a broader sample of more than 66,000 procurement records published by PLA units and state-owned defense enterprises in 2020. The report identifies key AI defense industry suppliers, highlights gaps in U.S. export control policies, and contextualizes the PLA’s AI investments within China’s broader strategy to compete with the United States.

Read the full article [here](#).

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# USEFUL RESOURCES

## NATURE INDEX

The Nature Index is a database of author affiliations and institutional relationships. The index tracks contributions to research articles published in 82 high-quality natural-science journals, chosen by an independent group of researchers.

The Nature Index provides absolute and fractional counts of article publication at the institutional and national level and, as such, is an indicator of global high-quality research output and collaboration. Data in the Nature Index are updated regularly, with the most recent 12 months made available under a Creative Commons license at [natureindex.com](https://natureindex.com). The database is compiled by Nature Portfolio.

Read the full article [here](#).

*Browse the following databases by the Nature Index:*

[Leading 500 Institutions from the Big 5 Science Nations](#)

[Leading 200 Institutions in Chemistry from the Big 5 Science Nations](#)

[Leading 200 Institutions in Earth & Environmental Sciences from the Big 5 Science Nations](#)

[Leading 200 Institutions in Life Sciences from the Big 5 Science Nations](#)

[Leading 200 Institutions in Physical Sciences from the Big 5 Science Nations](#)

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