2023–24 ANNUAL REPORT

Carnegie Mellon University
Carnegie Mellon Institute
for Strategy & Technology

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Director's Welcome

As we look back on the first year of the Carnegie Mellon Institute for Strategy and Technology (CMIST), it's with pride and excitement that I reflect on our accomplishments. Our journey from the Institute for Politics and Strategy (IPS) to becoming a university-wide initiative marks a transformational moment for CMIST and Carnegie Mellon University (CMU). This evolution has brought together experts from machine learning, robotics, and artificial intelligence with social scientists and policy specialists, creating a rich interdisciplinary environment focused on addressing the impact of emerging technologies on security, governance, and society.

Our inaugural year has been defined by achievements in three key areas: organizational restructuring, strategic recruitment, and expansion of the academic curriculum. These developments have laid a solid foundation for CMIST's mission of fostering responsible and strategic technological advancements and preparing students to address some of the most pressing issues of our time.

Organizational Restructuring and Renewal

In May 2023, CMIST's vision was presented to the CMU Board of Trustees, gaining their enthusiastic support for a new institute dedicated to strengthening civic education and exploring the ethical implications of new technologies. Our restructuring included being a thought leader and bridge to other units across CMU's campus, and establishing a Technology and Policy research arm pursuing deeper engagement with policymakers. This transformation has allowed us to broaden our scope and establish CMIST as a crucial nexus for research on technology and security.

The transition from IPS to CMIST was accompanied by a comprehensive rebranding process, beginning with the launch of a new website in August 2023. Throughout the year, we engaged students, faculty, and other stakeholders in conversations about CMIST's mission and values, gathering feedback that has helped to shape our direction. These conversations exemplify the collaborative spirit at CMU, and our progress has been bolstered by the advice and support of friends and mentors across the university.

Recruitment of New Faculty and Staff

A primary focus this year was building a strong team to advance CMIST's interdisciplinary goals. Starting small, we more than doubled the size of our staff, adding exceptional talent across various roles.

In addition to expanding our staff, we have also welcomed four new tenure-line faculty specializing in technology and security, hired an assistant teaching professor to cover US elections, civics, and political polarization, and appointed a senior lawyer and US policymaker for our Washington office.

Expansion of the Academic Curriculum

Our third area of accomplishment has been the significant expansion of our academic offerings. This year saw the launch of a Bachelor of Science in Political Science, Security, and Technology, and an associated minor which explore topics such as cybersecurity, military technology, digital diplomacy, and responsible artificial intelligence (AI). These programs prepare students to think critically about the ethical and societal implications of technological advancements and provide a foundation for careers that bridge technology and public policy.

We launched a minor in American Politics and Law, introducing new coursework on political polarization, US constitutional law, and elections and data. Through courses, roundtable discussions, and lectures we aim to increase civic understanding and deep conversations on critical topics facing the US and the world.

Additionally, we received university approval to offer a Master of Science in Security, Technology, and International Relations (MS STAIR), which will commence in fall 2025. This graduate program will further CMIST's mission by equipping students with the knowledge and skills to address the security challenges of the future. As part of our commitment to experiential learning, we celebrated a decade of the CMU Washington Semester Program (CMU/WSP), which continues to provide hands-on internships and networking opportunities in Washington, DC, fostering public service careers for our students.

Looking Ahead

Concluding our inaugural year, I am energized by the accomplishments and the opportunities that lie ahead. CMIST's interdisciplinary approach, rooted in CMU's history of innovation and collaborative research, positions us to address the complexities of technological change and its implications for global security. We are committed to creating research pathways that promote the responsible use of technology, expand opportunities for students, and shape a future where technology serves the common good. Together, we are building a foundation for impactful research, transformative education, and a legacy of ethical leadership.

Warm regards,

Audrey Kurth Cronin, Founding Director CMIST
Trustees Professor of Security and Technology

Building a Legacy
Embracing the Future

The CMIST annual report is a showcase of our achievements, progress, and commitment to excellence throughout our inaugural year, from May 2023 through June 2024.

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CMIST OVERVIEW

Carnegie
Mellon
University
Carnegie
Mellon
University

OUR STORY

In May 2023, Carnegie Mellon University (CMU) launched a major university-wide initiative devoted to the wise development, use, and governance of new and emerging technologies that are impacting national and international security.

CMU is a place of creativity, entrepreneurship, pragmatism, and ambition, with a tradition of strategically focusing its efforts and resources across the university in areas where it can lead, and then pursuing those areas with startling intensity.

The Carnegie Mellon Institute for Strategy & Technology, or CMIST, is just such a strategic undertaking. The home for CMU's study of political science and international relations, CMIST is uniquely poised to take advantage of the university's strengths in computer science and engineering and its distinctive tradition of collaborative, cross-university, cross-disciplinary research. Focused on questions of power and governance, CMIST builds new frameworks for managing current and future global security challenges.

CMIST has already achieved considerable accomplishments including the launch of a new website, the development of a technology and policy research division, the expansion of our Washington, DC programming, the establishment of several new speaker series, and significant faculty and staff growth. In addition, CMIST has launched a new undergraduate Bachelor of Science degree as well as two additional minors. Overall, CMIST has made major strides in its first year, establishing itself as a leading center for research, education, and dialogue on technology and security issues.

MISSION

Carnegie Mellon University's home for political science and international relations, CMIST is a university-wide initiative that works across campus to analyze the risks and benefits of emerging technologies in war and peace.

VISION

CMIST is dedicated to the wise development, use, and governance of new and innovative technologies. By acting as a bridge between scientists and strategists, CMIST seeks to develop creative interdisciplinary approaches to managing current and future global security threats.

IDENTITY

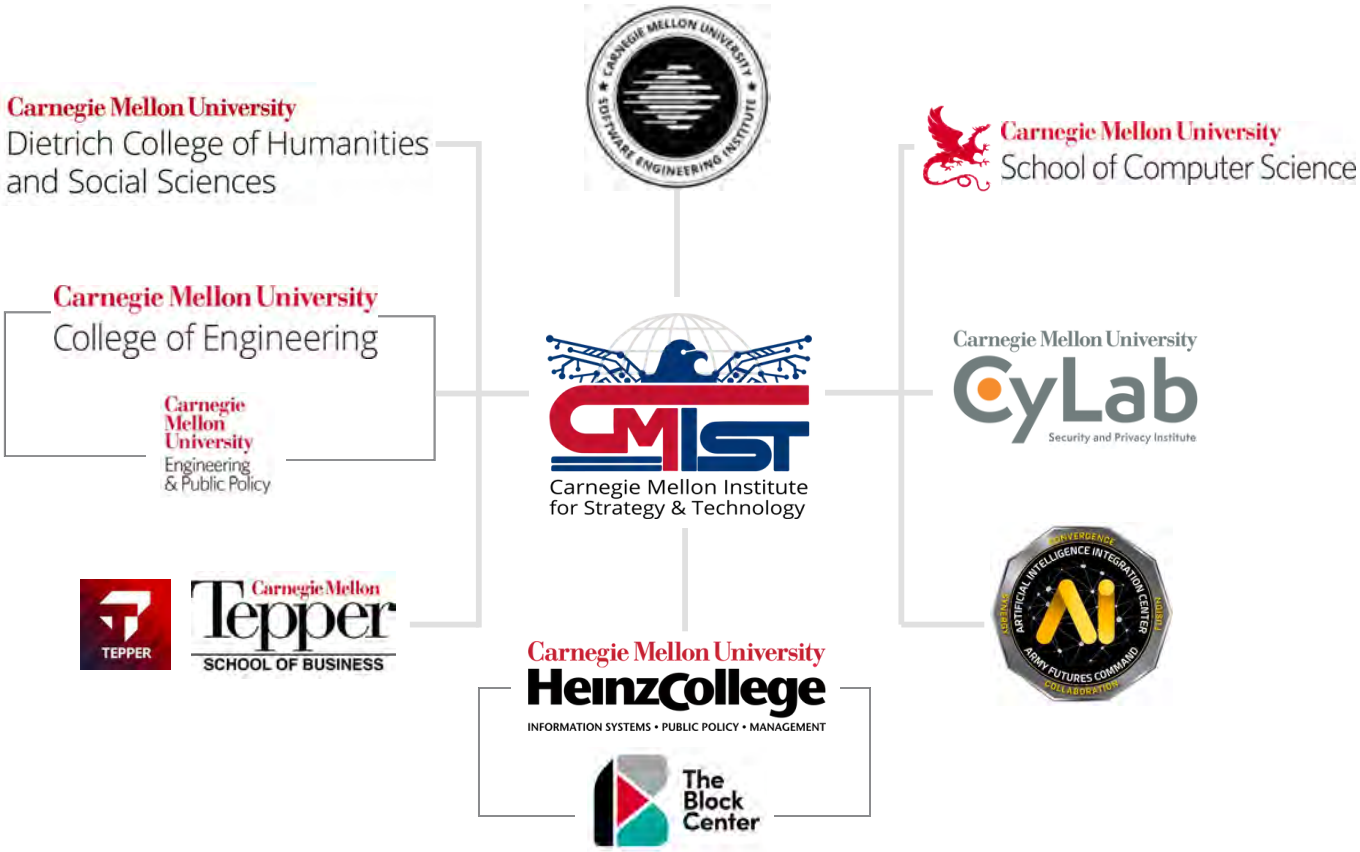
Carnegie Mellon Institute
for Strategy & Technology

Carnegie Mellon Institute
for Strategy & Technology

Through careful design and community input, our logo has become the emblem of the CMIST mission. A bird of prey, meticulously crafted with integrated circuits, embodies our commitment to ethical technological innovation. The globe backdrop underscores our international reach, while the shield on the icon signifies our focus on security and strategy. The CMIST color palette, inspired by CMU's approved hues, reflects balance and unity.

L to R: (1) CMU President Farnam Jahanian, Vali Nasr, Audrey Kurth Cronin; (2) CMU Provost Jim Garrett; (3) Rafael López, Audrey Kurth Cronin, Emily Half, Jess Regan; (4) Audrey Kurth Cronin, General Laura Richardson; (5) CMIST lecture; (6) Seth Bolden

TEAM OF TEAMS



CMIST operates as a collaborative Team of Teams bridging between leading research units at Carnegie Mellon University. This includes the School of Computer Science, CyLab Security and Privacy Institute, the Army Artificial Intelligence Integration Center, Heinz College, the Block Center, the Dietrich College of Humanities and Social Sciences, the Software Engineering Institute, the Tepper School of Business, the College of Engineering, and the Engineering and Public Policy program. The academic and teaching hub for CMIST is situated within Dietrich College.

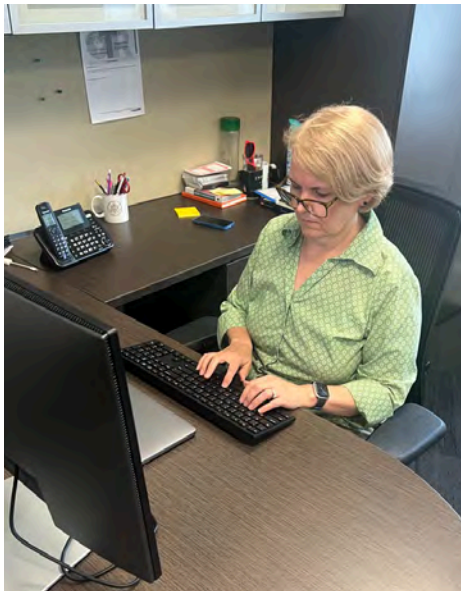
OUR TEAM

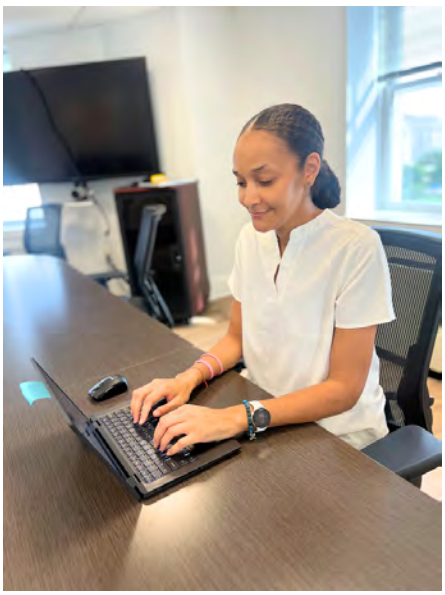
CMIST STAFF

Empowering Excellence
Building a Stronger Future Together

L to R: Ashley Barnes, Mark Gardner, Emily Half, Jacquelyn Hopkins, Carolyn Just, Rafael López, Lindsay Marcellus, Meg Neill, Jess Regan, Rosalie Woolf

Once a small operation with just a handful of dedicated staff members, CMIST has grown exponentially in the past year. Joining Emily Half (Deputy Director for Academic Affairs), Lindsay Marcellus (Communications Specialist), and Rosalie Woolf (Project Administrator) are Ashley Barnes (Washington Program Manager), Mark Gardner (Graduate Program Manager), Jacquelyn Hopkins (Project Administrator), Carolyn Just (Special Assistant to the Director), Rafael López (Deputy Director for Security Policy Studies), Meg Neill (Washington Project Administrator), and Jess Regan (Chief Strategy and Marketing Officer). This growth is a testament to our commitment to the larger mission of CMIST and CMU.



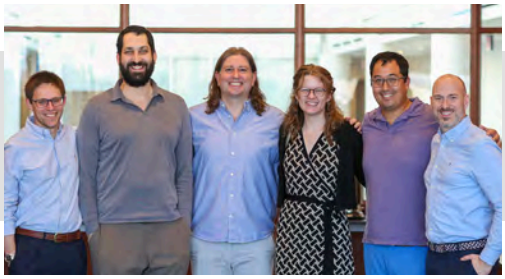


L to R: (1) Mark Gardner, Rosalie Woolf; (2) Meg Neill; (3) CMIST Staff Meeting; (4) Jess Regan, Audrey Kurth Cronin, Jacquelyn Hopkins, Rosalie Woolf; (5) Rafael López, Audrey Kurth Cronin; (6) Mark Gardner, Rosalie Woolf, Patrick Cronin, Audrey Kurth Cronin; (7) Emily Half; (8) Ashley Barnes

CMIST FACULTY

L to R: Audrey Kurth Cronin, CMIST Director, Trustees Professor of Security and Technology; Ignacio Arana Araya, Assistant Professor; Haleigh Bartos, Associate Professor of the Practice; Matthew Butkovic, Lecturer; Justin Canfil, Assistant Professor; Kathleen M. Carley, Professor of Computer Science, Center for Computational Analysis of Social and Organizational Systems Director; Jonathan Cervas, Assistant Teaching Professor; John Chin, Assistant Teaching Professor; Kelly Voss Coletti, Lecturer; Fred Crawford, Lecturer; Dale Crowell, Lecturer; Molly Dunigan, Senior Lecturer; Baruch Fischhoff, Howard Heinz University Professor; Mark Kamlet, University Professor of Economics and Public Policy, Chair of the Graduate Committee, Provost Emeritus; Nadiya Kostyuk, Assistant Professor; Matthew Lane, Lecturer; Sophie le Blanc, Lecturer; Bill Marcellino, Lecturer; Geoffrey McGovern, Senior Lecturer; Forrest Morgan, Senior Lecturer; Harvey Rishikof, Visiting Professor; Joshua Schwartz, Assistant Professor; Daniel Silverman, Assistant Professor; Andrew Stravers, Lecturer; Mark Toukan, Lecturer

Expanding Expertise
Strengthening Our Academic Foundation



CMIST inherited a foundational academic program from the Institute for Politics and Strategy (IPS). Under interim Director Mark Kamlet, the institute had four full time faculty members: Assistant Professor Ignacio Arana, Assistant Teaching Professor John Chin, Assistant Professor Daniel Silverman, and Associate Professor of the Practice Haleigh Bartos. Howard Heinz University Professor Baruch Fischhoff was jointly appointed between IPS and Engineering and Public Policy.

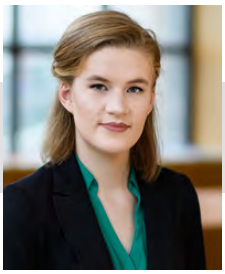
Building upon that foundation, CMIST significantly expanded its faculty this past year. To drive academic growth, we have recruited four new tenure-line faculty specializing in technology and security. Joshua Schwartz (Penn, MIT) and Justin Canfil (Columbia, MIT) joined in AY 2023-24, focusing on unmanned systems and China-tech relations, respectively. International security and technology specialist Nadiya Kostyuk (Georgia Tech) joins for AY 2024-25 and Hannah Bailey (University of Oxford), whose research focuses on Artificial Intelligence, governance, and policy, joins in January 2025. Harvey Rishikof, a seasoned legal and policy expert, has been appointed Visiting Professor for our Washington center, and Jonathan Cervas, who joined Carnegie Mellon University in 2020, is now Assistant Teaching Professor. Both Professor Rishikof and Professor Cervas will bolster our curriculum in US elections, civics, law, and political polarization.

SCHOLARS & FELLOWS

Cultivating Growth
Pioneering the Path Forward

Patrick Cronin
CMU Scholar in Residence;
Asia-Pacific security chair, Hudson Institute

Jim Richardson
CMU Distinguished Executive in Residence;
Retired, US Army Lieutenant General



Nicole Kliewer
Post-Doctoral Fellow

Hanzhang Liu
Visiting Fellow

Nicolas Albarracin
USSOCOM Fellow

Caitlan Fealing
William S. Dietrich Fellow

This year we welcomed Caitlan Fealing as our first CMIST PhD student. The title of the PhD, when successfully completed, will be Doctor of Philosophy in International Relations, Security, and Technology (Student Defined Major). Caitlan is the William S. Dietrich Fellow within CMIST.

OUR TEACHING & ACADEMIC RESEARCH MISSION

ACADEMIC PROGRAMS

Our academic programs equip students with the skills necessary to understand, influence, and contribute to the public interest. By engaging with complex global issues and emerging threats, our students are prepared to lead in government, politics, and the private sector. We offer a comprehensive suite of programs, including three majors, six minors, and two master's degrees. These programs provide a robust education that encompasses the study of great-power competition and contemporary threats such as terrorism and cyber warfare, as well as issues of domestic politics and law.

Majors

- BS International Relations and Political Science
- *New!* BS Political Science, Security, and Technology
- BS Economics and Politics

Minors

- *New!* Minor in American Politics and Law
- Minor in Cybersecurity and International Conflict
- Minor in International Relations and Political Science
- Minor in Military Strategy and International Relations
- *New!* Minor in Political Science, Security, and Technology
- Minor in Politics and Public Policy (CMU/WSP)

Master's

- Master of Information Technology Strategy
- MS in International Relations and Politics

BACHELOR'S DEGREES

Bachelor of Science in International Relations and Political Science (IRPS)

Designed for students who seek to develop a systematic understanding of both international and domestic politics, this major allows students to wrestle with a wide range of political science issues including the future of democracy, the relationship between technology and politics, the drivers of war and peace, domestic politics across countries, and the formulation of effective foreign policies.

Bachelor of Science in Political Science, Security, and Technology (PSST)

With a social science approach to the study of emerging technologies affecting domestic and international relations, students are well-positioned to shape the future, benefiting from novel research across various technological disciplines like machine learning, cybersecurity, and artificial intelligence.

Bachelor of Science in Economics and Politics (EconPol)

Offered jointly by CMIST and the Undergraduate Economics Program in the Tepper School of Business, this major appeals to students interested in the design, evaluation, and political implementation of economic policy. It is particularly suited for those considering careers in politics, government agencies, consulting, lobbying, or law.

MINORS

American Politics and Law (APL)

Providing students with an interdisciplinary education in American politics and law, this program covers civics, policy development, and legal principles. Through a curriculum focused on theory and practical skills, students develop critical thinking abilities by analyzing primary sources, real-world examples, and current events.

Cybersecurity and International Conflict (CIC)

Addressing critical gaps in cybersecurity and global conflict, this program equips students with the knowledge and skills necessary to understand and respond to cyber threats. Students learn fundamental technology concepts, attack and defense methods, and strategies for cyber-engagement, including response and forensics.

International Relations and Political Science (IRPS)

This program teaches students systematic thinking and provides foundational knowledge of politics, international relations, comparative politics, and domestic politics through the lens of political science. Coursework focuses on political institutions, decision-making, and contemporary global challenges.

Military Strategy and International Relations (MSIR)

By examining military strategy, national security, and the impact of emerging technologies, this minor prepares students for leadership roles in the military and defense industries. Designed for all undergraduates, especially those in the Reserve Officer Training Corps (ROTC) and defense-related career tracks, this program provides insight into the strategic and political contexts facing military leaders and the frameworks guiding their decisions.

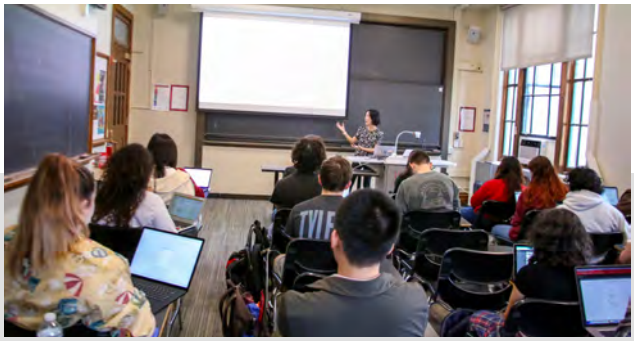
MINORS

Political Science, Security, and Technology (PSST)

Tailored for students across diverse disciplines, from arts to engineering, this minor provides a political science perspective on the ethical, social, and political implications of emerging technologies. Taking a social science approach rather than a technical one, it examines how new technologies impact security and warfare.

Politics and Public Policy (PPP)

Grounded in political science, this minor explores US public policy issues and American politics, offering practical, hands-on learning experiences. Students are required to take part in the Carnegie Mellon University Washington Semester Program (CMU/WSP), spending a semester interning and taking CMU classes in Washington, DC.



MASTER'S DEGREES

Master of Information Technology Strategy (MITS)

Administered by CMIST, MITS is a collaborative program with the College of Engineering and the School of Computer Science. This degree equips leaders in IT strategy by providing a comprehensive understanding of how various IT components integrate and allow for customization to individual interests, enhancing employability. With two flexible tracks, 12 or 16 months, it includes a Capstone Project where teams work with organizations to tackle strategic challenges. Students specialize in Data Analytics, Information Security, Technology Strategy & Governance, or Software and Networked Systems.

Master of Science in International Relations and Politics (MS IRP)

The MS IRP allows students to specialize in key areas of political science, including international security, international relations, American politics, and comparative politics. Students also develop strong methodological skills through courses like regression analysis for political science, preparing them for advanced research and future PhD or JD programs. The program includes a required summer internship, providing practical experience and professional skills. Admissions to this program ceased in fall 2024 in preparation for a new CMIST master's program, Master of Science in Security, Technology and International Relations (MS STAIR), launching in fall 2025.

EXPANSION OF CURRICULUM

During the 2023-2024 academic year, CMIST launched three innovative programs: the Bachelor of Science in Political Science, Security, and Technology (PSST), the related minor in PSST, and a minor in American Politics and Law (APL). The new PSST major and minor address the growing need for expertise at the intersection of technology and political science, positioning our graduates to navigate and influence an evolving technological landscape. The APL minor was created in response to growing student interest in law and domestic politics, equipping students with the tools to navigate the complex and evolving American political system. CMIST also designed a new master's degree, the Master of Science in Security, Technology, and International Relations (MS STAIR), and received approval to formally admit its first cohort in fall 2025

ENROLLMENT

A ten-year examination of enrollment figures reveals two trends. First, we observe a consistent upward trajectory in overall student enrollment within our political science and international relations programs. Second, there is a positive growth and evolution in the range of programs offered. The BS in International Relations and Political Science (BS IRPS, formerly IRP) remains the most popular and enduring program, while the newly introduced BS in Political Science, Security, and Technology (BS PSST) has quickly gained traction without negatively affecting other majors' enrollments. This suggests a growing interest in specialized fields. Additionally, CMIST minors maintain stable popularity, and the new American Politics and Law minor, introduced in spring 2024, has rapidly become a top choice.

STUDENT-FOCUSED EVENTS

This year, CMIST offered a dynamic range of student activities aimed at bolstering academic and professional growth. Under the leadership of Director Audrey Kurth Cronin, CMIST convened Town Hall meetings and dinners for undergraduates, providing a platform to discuss new academic initiatives and the transition to CMIST.

CMU undergraduate and graduate students also participated in open houses at Posner Hall's Grand Room, where they interacted with CMIST faculty, advisors, and peers. One of the most popular engagements is CMIST's Politics & Pie, held twice a year to complement course registration. During this event, faculty speak with students from around campus about upcoming course offerings and research opportunities while enjoying pie from a local bakery. The event is also an occasion for students to talk to others who have already taken CMIST courses or have similar interests.

To further foster community spirit, CMIST hosted a series of welcome breakfasts for staff, faculty, and students and provided opportunities for students to meet with alumni from our academic programs. For example 2015 graduate of the Master of Information Technology Strategy program, Ming Fang, led an in-person roundtable and Julia Adams, who graduated in 2019 with her Bachelor of Science in International Relations and Politics, met with current students virtually to share professional experiences and post-graduation trajectories.

CMIST sponsored various professional development engagements for students including a Federal Resumes and USA Jobs information session. Former Friedman Fellows reunited with donor Cynthia Friedman and her son Gordon for roundtable discussions. Students recounted personal experiences from the Washington Semester Program (CMU/WSP) and the summer Friedman Fellowship program, sharing how the financial support from the scholarships made it possible to complete internships in Washington, DC.

CMIST also organized sightseeing cruises of Pittsburgh, offering new graduate students and military fellows an opportunity to explore the area and cultivate a sense of community.

The year featured several celebratory events, such as the Dietrich Holiday Party, which brought together graduate students, faculty, staff, and the beloved CMU mascot, Scottie. Students enjoyed a welcome back breakfast to kick off the semester and a Cookies & Cocoa stress relief event to close out the fall term.

To end the academic year, we celebrated the conferral of degrees for 25 undergraduate students and 34 graduate students through a formal diploma ceremony. The occasion was followed by a celebratory CMIST reception marking the culmination of years of hard work and dedication — a joyous celebration for our graduates, their families and friends, and the CMIST community as a whole.

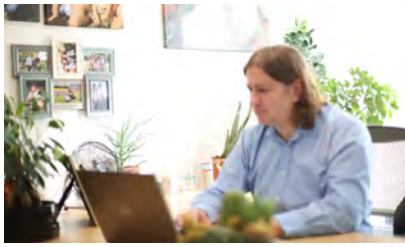
"MY HEART IS
IN THE WORK."

A SAMPLE OF STUDENT ACHIEVEMENTS

CMIST Students & Alumni

- CMIST students Keilani Barba, Oliver Bauer, Jo-Michelle "JoJo" Huczko, Nick Mlakar, and Marissa Baldauf Pekular were inducted into Phi Beta Kappa.
- Marissa Baldauf Pekular received the 2024 Carnegie Mellon Women's Association Award.
- JoJo Huczko was awarded the Dr. William Brown Academic Athletic Achievement Award and the Dietrich Humanities Prize for research presented at Meeting of the Minds 2024.
- Marissa Baldauf Pekular and JoJo Huczko were selected as 2023–24 Andrew Carnegie Society Scholars.
- CMIST graduates Steven Aceti, Keilani Barba, Sydney Boyer, Adiva Dutta, Patrick Fisher, Allison Hallowell, JoJo Huczko, Abigail Khieu, Jie Liu, Nick Mlakar, Tristan Ohler, Marissa Baldauf Pekular, Avani Seshiah, and Vita Shats received the Senior Leadership Recognition award.
- Graduate student Matthew Porter was named CMU Student-Athlete of the Week (November 6–12, 2024).
- Joshua Pinckney, 2021 graduate with degrees in International Relations and Politics (CMIST) and Hispanic Studies (LCAL), was awarded a Pickering Fellowship.
- Jordyn Gilliard, who graduated with a Master of Science in International Relations and Politics in 2022, was selected to participate in the inaugural Global Citizenship Fellowship of World Affairs Council of Pittsburgh.

FACULTY RESEARCH



The research conducted by CMIST faculty this year covers a range of contemporary security challenges, including the Israel-Hamas conflict, the Russia-Ukraine war, and Africa's evolving geopolitical landscape. From great power competition to the impact of fraud on elections, our faculty offer insights into the implications on global security and stability.

Cronin, Audrey Kurth. "How Hamas Ends: A Strategy for Letting the Group Defeat Itself." *Foreign Affairs* 103, no. 4 (2024).

Schwartz, Joshua A. "When Foreign Countries Push the Button." *International Security* 48, no. 4 (2024).

Chin, John J., and Haleigh Bartos. "Rethinking U.S. Africa Policy Amid Changing Geopolitical Realities." *Texas National Security* Review 7, no. 2 (2024).

Kostyuk, Nadiya. "Cyber: Complements and Substitutes." In *Elements of Deterrence: Strategy, Technology, and Complexity in Global Politics,* edited by Erik Gartzke and Jon R. Lindsay (Oxford University Press, 2024).

Schwartz, Joshua A., and Dominic Tierney. "Us and Them: Foreign Threat and Domestic Polarization." *Journal of Conflict Resolution* (2024).

Morgan, Forrest E. "Deterring Attacks on Space Systems." In *The Oxford Handbook of Space Security*, edited by Saadia M. Pekkanen and P.J. Blount (Oxford University Press, 2024).

Canfil, Justin. “Until Consensus: Introducing the International Cyber Expression Dataset.” *Journal of Peace Research* 61, no. 1 (2024).

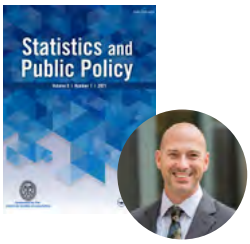
Cronin, Audrey Kurth. "Hamas’s Asymmetric Advantage: What Does It Mean to Defeat a Terrorist Group?" *Foreign Affairs*, 103, no. 1 (2024).

Timoneda, Joan C., Abel Escribà-Folch, and John Chin. “The Rush to Personalize: Power Concentration after Failed Coups in Dictatorships.” *British Journal of Political Science* 53, no. 3 (2023).

Cervas, Jonathan, Bernard Grofman, and Scott Matsuda. "The Role Of State Courts In Constraining Partisan Gerrymandering In Congressional Elections." *The University of New Hampshire Law Review* 21, no. 2 (2023).

Arana Araya, Ignacio. "Dominant Personality and Politically Inexperienced Presidents Challenge Term Limits." *The Journal of Politics* 85, no. 4, (2023).

Cronin, Audrey Kurth. "How Private Tech Companies Are Reshaping Great Power Competition." *The Kissinger Papers*, (August 2023).



Grofman, Bernard, and Jonathan Cervas. "Statistical Fallacies in Claims about ‘Massive and Widespread Fraud’ in the 2020 Presidential Election: Examining Claims Based on Aggregate Election Results." *Statistics and Public Policy* 11, no. 1 (2024).

Blair, Christopher W., and Joshua A. Schwartz. "The Gendered Peace Premium." *International Studies Quarterly* 67, no. 4 (2023).

Acosta, Benjamin, Reyko Huang, and Daniel Silverman. “Introducing ROLE: A Database of Rebel Leader Attributes in Armed Conflict.” *Journal of Peace Research* 60, no. 2 (2023).

New Mexico Republican Party v. Oliver. Brief amicus curiae of Dr. Jonathan Cervas, Paul Mitchell, Dr. Samuel S.-H. Wang, Roderick Kennedy, Election Reformers Network, Common Cause New Mexico, and League of Women Voters New Mexico, in support of neither party. 14 August 2023.

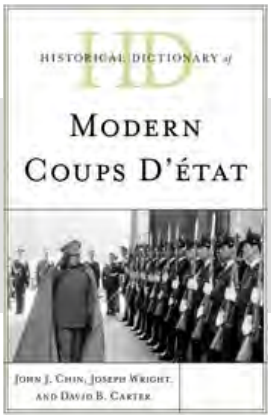
Chin, John J., Kiron Skinner, and Clay Yoo. "Understanding National Security Strategies Through Time." *Texas National Security Review* 6, no. 4 (2023).

Political Science Research Workshop

The Political Science Research Workshop (PSRW), created and led by Daniel Silverman, is a collaborative engagement where CMIST faculty receive feedback on working papers or current research.

A Sample of CMIST Faculty Awards

- Ignacio Arana Araya was awarded best paper published by a member of the Chilean Association of Political Science from 2020–23
- Jonathan Cervas was appointed by the Wisconsin Supreme Court as one of two nonpartisan experts to vet proposals for the redrawing of the state's legislative maps
- John Chin's *Historical Dictionary of Coup d'Etats* was awarded Best Historical Materials published in 2022–23

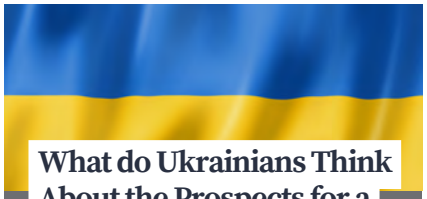


MEDIA & EXPERTISE

Our faculty frequently garnered attention in the media, with their expertise and insights featured in major news outlets, from *Foreign Affairs* to *The Atlantic*. During the past year the CMIST faculty collectively published a plethora of new articles on a variety of topics from defeating terrorism to the impact of artificial intelligence on war. Several members of the faculty and staff also contributed through media interviews and podcasts. Their efforts not only shape industry conversations on politics, policy, and international affairs, but also reflect the advanced knowledge they bring to their teaching. This work underscores their role as experts and enhances the academic experience for our students.

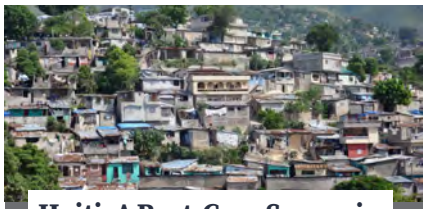
Can Bolivia Ever Escape the Coup Trap?

John Chin and Joseph Wright
Journal of Democracy



What do Ukrainians Think About the Prospects for a Peaceful Settlement with Russia?

Anna Pechenkina, **Daniel Silverman,** and Austin Knuppe
Civil War Paths



Haiti: A Best-Case Scenario

Haleigh Bartos, John Chin, and Tyler Ashner
War on the Rocks

What Iran's Drone Attack Portends for the Future of Warfare

Joshua A. Schwartz
Modern War Institute

Why More Female Leaders Won't Lead to More Peace

Joshua A. Schwartz and Christopher Blair
Lawfare

Is North Korea Getting Ready for War? No, and the Reason Is Obvious

Patrick M. Cronin
The National Interest

Will Artificial Intelligence Lead to War?

Patrick M. Cronin and Audrey Kurth Cronin
The National Interest

What to Make of Kim Jong Un's Latest Threats of War

Patrick Cronin
The Messenger

What Israel Can Learn from U.S. Intelligence Failures

Haleigh Bartos and John Chin
The National Interest

North Korea-Russia Cooperation Will Further Deteriorate World Order

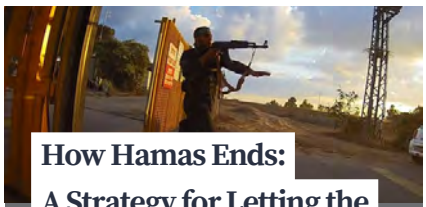
Patrick M. Cronin
The Messenger

Decolonizing Israel-Palestine is a Dangerous Delusion

Daniel Silverman
The National Interest

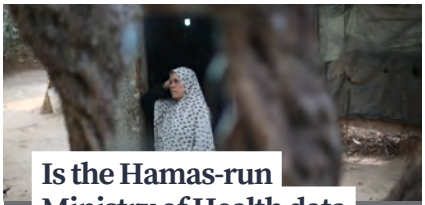
How New Reports Reveal Israeli Intelligence Underestimated Hamas and Other Key Weaknesses

John Chin and Haleigh Bartos
The Conversation



How Hamas Ends: A Strategy for Letting the Group Defeat Itself

Audrey Kurth Cronin
Foreign Affairs



Is the Hamas-run Ministry of Health data on fatalities in Gaza to be trusted?

Michael Spagat and Daniel Silverman
AOAV (Action on Armed Violence)

What Went Wrong? Three Hypotheses on Israel's Massive Intelligence Failure

Haleigh Bartos and John Chin
Modern War Institute

How Israel Can Win: Defeating Hamas Will Require a Strategy That Goes Beyond Revenge

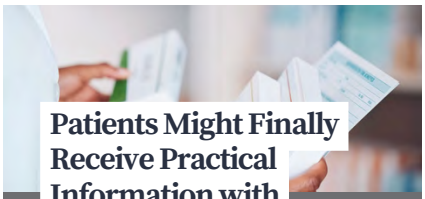
Audrey Kurth Cronin
Foreign Affairs

Biden's Africa Policy Trilemma

Haleigh Bartos and John Chin
The Duck of Minerva

Failure to Launch: The Problem With the Putin-Kim Strategy

Patrick Cronin
The Messenger



Patients Might Finally Receive Practical Information with Prescriptions — If the FDA Doesn't Blow It

Baruch Fischhoff, Steven Woloshin, Tamar Krishnamurti, and Barry Dewitt
STAT

Open Source Technology and Public-Private Innovation Are the Key to Ukraine's Strategic Resilience

Audrey Kurth Cronin
War on the Rocks

Guatemala's Elections Could Give the Presidency to Another Former First Lady

Ignacio Arana Araya
Latinoamérica21

The Promise of Camp David: Trilateral Summit is a Watershed for Asian Security

Patrick M. Cronin
The National Interest

US Soldier Travis King's Mad, Doomed Dash to North Korea

Patrick M. Cronin
New York Post

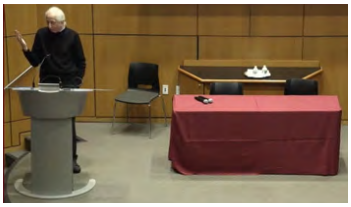
United States and China are Taking Opposite Approaches to AI

Audrey Kurth Cronin
Fox News

Interviews, Webinars, and Lectures: A Sample

UN Calls For Ceasefire, But Will Israel And Hamas Approve?

CNN - Amanpour; 6/11/2024
Guests: Audrey Kurth Cronin and Daniel Kurtzer



Trying to Make Ourselves Useful

2023 Anastasi Lecture; 10/19/2023
Lecturer: Baruch Fischhoff

What's Behind the Wave of Military Coups in Africa?

DW News Africa; 9/03/2023
Guests: John Chin

Keynote Lecture: Ignacio Arana Araya, CMU Constitution Day 2023, 9/19/2023
The personalities of presidents who lead constitutional power grabs: evidence from Latin America, 1945-2021

Lecture: Ignacio Arana Araya, Universidad de Concepción (Chile), 10/4/2023
Personalidades Presidenciales y Asaltos Constitucionales en America Latina, 1945-2021

Interview: Audrey Kurth Cronin, *Politico*, 10/10/2023
"We just saw the future of war" by Derek Robertson

Live Interview: Daniel Silverman, ABC (Australia Broadcasting Corporation), 11/2023

Interview: William Marcellino, WORT 89.9 FM, 11/24/2023
AI, Disinformation Campaigns, And A Potential National Security Threat

Webinar: Audrey Kurth Cronin, *The Washington History Seminar*, 12/4/2023
Forgotten Warriors: The Long History of Women in Combat

Webinar: Audrey Kurth Cronin, *Council on Foreign Relations*, 12/21/2023
Virtual Media Briefing: Israel's Military Strategy in Gaza

Interview: Audrey Kurth Cronin, Der Spiegel, 1/09/2024
Israel ist in die Falle getappt

Ask the Experts: Audrey Kurth Cronin, *Foreign Affairs*, 2/21/2024 In the Wake of the War in Gaza, Is the Two-State Solution Still Viable?

Named Lecture: Baruch Fischhoff, Rachel Carson Distinguished Lecture Anniversary Series, 2/22/2024
Environmental Science and Behavioral Science Need One Another

Lecture: Ignacio Arana Araya, The Pittsburgh Committee on Foreign Relations, 5/1/2024
Latin America: Presidents and Constitutional Power Grabs, 1945-2021

Interview: Baruch Fischhoff, News.Az Online News Agency, 5/25/2024
Baruch Fischhoff: Attendees of COP29 Baku to be motivated by different goals

Keynote Remarks: Jonathan Cervas, N.Y. Redistricting: What Happened and What's Next? Conference (New York Law School), 6/18/2024

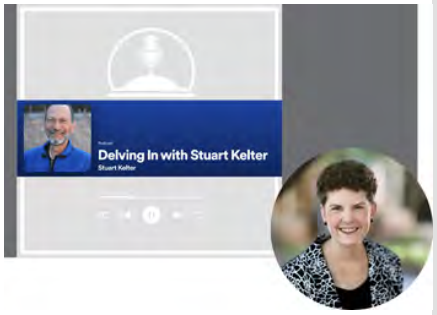
Podcasts

When Third Parties Matter

The Science of Politics
Podcast Guest: Jonathan Cervas

JADC2: A Primer

Command and Control
Podcast Guest: Rafael López



How Terrorism Ends

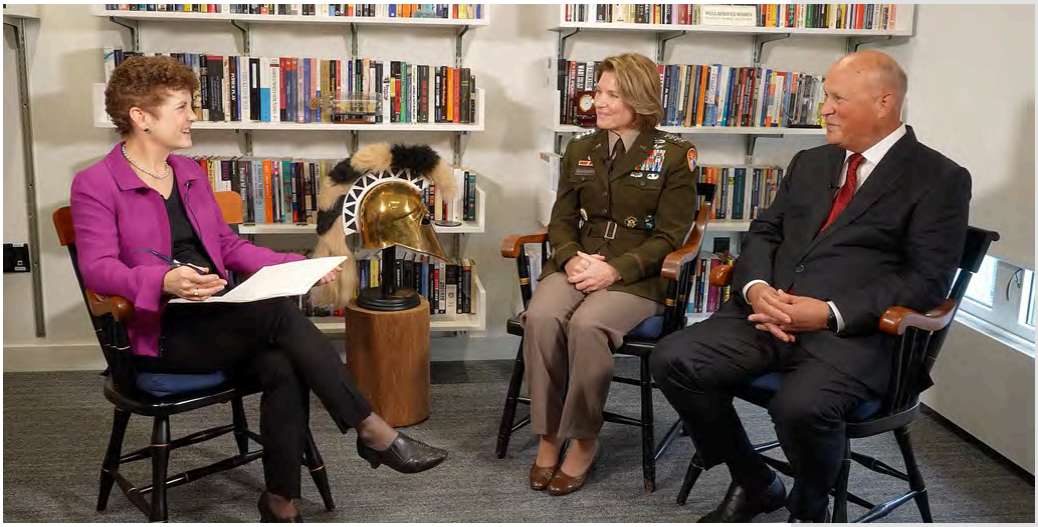
Delving In with Stuart Kelter
Podcast Guest: Audrey Kurth Cronin

Washington Roundtable

Defense & Aerospace Report
Podcast Guest: Patrick M. Cronin

In addition to frequent publications and media engagements, CMIST faculty and their work are regularly cited in prominent outlets such as *The New York Times, NBC News, Politico, The Economist,* and *The Washington Post.*

OUR TECHNOLOGY & POLICY MISSION



L to R: (1) Patrick Cronin, Admiral (Ret.) James Foggo; (2) Audrey Kurth Cronin, Lieutenant General (Ret.) Jim Richardson; (3) Audrey Kurth Cronin, General Laura Richardson, Lieutenant General (Ret.) Jim Richardson

PUBLIC ENGAGEMENTS

A cornerstone of CMIST is our commitment to examining the impacts of emerging technologies on global security. This dedication has led to the establishment of several new public engagement initiatives, possible in large part due to support from the Daniel Wallace Research Fund for Technology and Humanity and the Glen T. and Diane B. Meakem Endowed Fund.

CONVERSATIONS WITH SENIOR LEADERS

This year, CMIST introduced *Conversations with Senior Leaders*, featuring discussions with prominent leaders in security and technology. The series provides a platform for distinguished leaders to share their leadership philosophies, strategies for success, and invaluable lessons learned over their illustrious careers. Notable guests included General Laura Richardson, Admiral (Ret.) James Foggo, and Lieutenant General (Ret.) Jim Richardson. Discussions are recorded and subsequently shared on our website for public viewing. They can also be accessed directly via CMIST's YouTube channel.

CMIST SCIENTISTS & STRATEGISTS

In spring 2024, we launched our *Scientists and Strategists* speaker series, which brings scientists and engineers together with strategists and policymakers for discussions about intersections in strategy and technology. These in-person events are open to the public and are also recorded and shared online, making them accessible to a wider audience.

Boomers, Doomers, and the Politics of Technology with Dr. Sarah Kreps
January 23, 2024

Power to the People: How Accessible Lethal Technology Alters War and Peace with Prof. Audrey Kurth Cronin
February 20, 2024

Forgotten Warriors: The Long History of Women in Combat with Dr. Sarah Percy
March 26, 2024

Beyond Dual Use: Rethinking the Way We Understand and Govern Security Concerns in Science and Technology with Dr. Sam Weiss Evans
April 16, 2024

The Exceptions: How 16 Women Started a Revolution in Science, and What it Means for Us Today with Kate Zernike
April 23, 2024

Lawfully Speaking | A FORUM ON LAW & ETHICS

In March 2024, we unveiled *Lawfully Speaking: A Forum on Law & Ethics*. This initiative serves as a platform for discussing ethical considerations at the intersection of law, technology, and policy. Our inaugural guest was John B. Bellinger III, former Legal Advisor to the US Department of State and the National Security Council. His presentation, 'Who's Afraid of International Law?' delved into the intricacies of negotiating the Law of the Sea Treaty, the differences between bilateral and multilateral agreements, and the US constitutional constraints on treaty approval.

CROSS COMMUNITY COLLABORATION

As part of our Team of Team's approach, CMIST works with CMU's premier research units to foster dynamic exchanges of expertise. Through briefings, tours, and other collaborative initiatives, CMIST provides opportunities for distinguished guests, faculty, staff, and students to witness firsthand the cutting-edge research being conducted at CMU and to learn directly from those engaged in developing these groundbreaking technologies.

L to R: Cloud Lab tour; Cylab briefing; WiSE Lab tour; Biorobotics tour; Collaborative event with Heinz/Dean Krishnan; Mill 19 and Manufacturing Futures Institute tour

PROFESSIONAL PROGRAMMING

CMIST provides a diverse range of educational and professional opportunities designed to leverage the mastery of our experts. Our professional education courses bridge the gap between innovation and policy, offering practical solutions for organizations in security, strategy, and technology. Our team designs custom courses in artificial intelligence, machine learning, cybersecurity, robotics, and more, empowering organizations to harness emerging technologies and drive real-world results.

L to R: (1) Audrey Kurth Cronin; (2) Bill Marcellino ; (3) Rafael López

AI Bootcamp for USCG Intel Professionals: Implications for National Security

In December 2023, in collaboration with the Office of the United States Coast Guard (USCG) Assistant Commandant for Intelligence, Coast Guard Headquarters (CG-2), CMIST hosted a three-day artificial intelligence (AI) workshop for USCG intel professionals. The workshop was structured into three key modules over a three day period.

In addition to traditional read-ahead materials, registrants and presenters were provided access to an interactive chatbot to facilitate guided discussions on event presentations, speakers, and their recent publications and public engagements. Post-event, the chatbot ingested data from the webinar and served as a comprehensive knowledge repository.

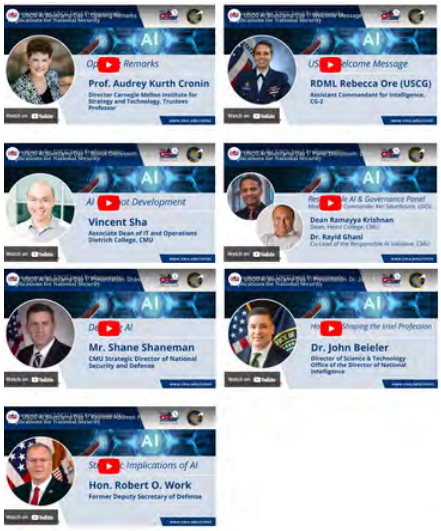
Moderated by Ralph López, CMIST Deputy Director for Security Policy Studies and Jess Regan, CMIST Chief Strategy and Marketing Officer, the course gave participants access to top CMU leaders, including senior leaders, security scholars, policy experts, and scientists and researchers.

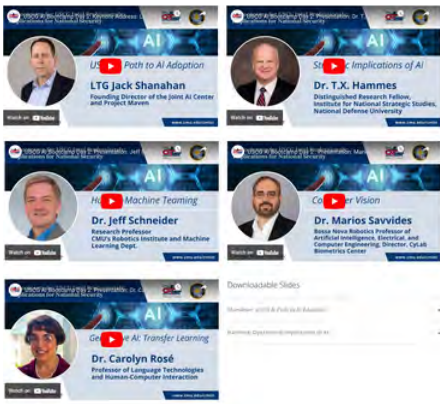
Course objectives included:

- Appreciate how AI impacts US Coast Guard strategy and intelligence.
- Explain the relationship between AI, machine learning, computer vision, and natural language processing within the context of the USCG intelligence domain.
- Gain knowledge of advancements in the Department of Defense (DoD) Ethical AI Principles and Responsible AI framework.

Day 1: Defining AI as a Source of Advantage

Topics included responsible rules of governance over AI technologies, the structure and history of the AI stack, how AI is shaping intelligence operations, and an overview of the strategic implications of AI. Opening with a panel discussion highlighting the recommendations of the DoD Advisory Board on AI, the module closed with a keynote address by the Honorable Robert O. Work, former Deputy Assistant Secretary of Defense.





Day 2: National Security Implications of AI

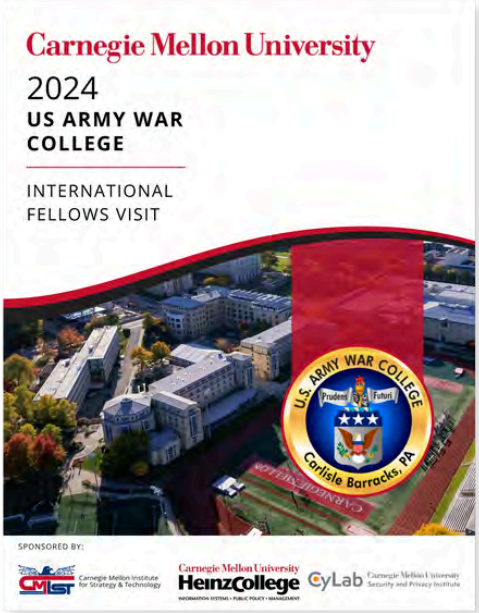
Topics included the operational implications of AI, human machine teaming and automation, computer vision, and generative AI. Opening with a keynote address by Lt. Gen. Jack Shanahan, USAF (RET), the founding director of the Joint AI Center and Project Maven, the module focused on groundbreaking research.

Day 3: Technology and Competition

Topics included data as a basic building block of AI, evolving commercial technological capabilities, and adversarial AI technological capabilities. The three-day event concluded with a panel discussion on the future implications of AI on National Security.

This workshop exemplified our commitment to advancing strategic understanding of AI within national security frameworks. The high level of engagement and the participation of over 250 people highlighted the success of this collaborative effort, further cementing our role in professional development within the intelligence community.

US Army War College International Fellows Visit



CMIST, in collaboration with Heinz College and CyLab, welcomed a distinguished group of 75 military officers from 72 countries to Carnegie Mellon University (CMU) as part of the US Army War College International Fellows Program. This event provided an exclusive platform for these future international leaders to engage with advanced research and explore pressing global security challenges.

The event kicked off with a social gathering on February 6, 2024, offering an informal opportunity for networking and cultural exchange.

On the following day, the fellows were immersed in a series of insightful presentations and lab tours. CMIST Director Audrey Kurth Cronin opened the event highlighting CMU's commitment to innovation and impact. Heinz College Executive Director David Eber followed, emphasizing the university's focus on preparing leaders for the future.

The education program then delved into critical topics such as artificial intelligence (AI) and cybersecurity. CMIST Deputy Director Ralph López presented a comprehensive overview of the AI stack, while Heinz College Dean Ramayya Krishnan discussed the ethical implications of AI and the importance of responsible development. CyLab Director Lorrie Cranor shed light on the evolving cybersecurity landscape and the need for robust privacy protections.

To further enhance their understanding of the current research, the fellows toured CMU's state-of-the-art research labs. They had the opportunity to witness firsthand the innovative work being done in areas such as biometrics, augmented reality, and robotics.

Key highlights of the event included:

- **AI and its Implications:** Discussions on the ethical use of AI, its potential impact on society, and the need for robust governance frameworks.
- **Cybersecurity and Privacy:** Exploration of the evolving cybersecurity landscape, including the growing threat of cyberattacks and the importance of data privacy.
- **Robotics and Automation:** Demonstrations of advanced robotic systems, such as search and rescue robots and autonomous vehicles, and their potential applications in military and civilian settings.

By convening international military leaders and CMU faculty, this event advanced global security through knowledge exchange and dialogue.

DARPA Service Chiefs Fellows Visit

On June 11, 2024, thirteen Service Chiefs Fellows from the Defense Advanced Research Projects Agency (DARPA) visited Carnegie Mellon University (CMU) to explore ongoing research being conducted at the university. The visit, hosted by CMIST, provided a special opportunity for the fellows to receive an overview of CMU's research and expertise in areas of emerging technology and to engage with CMU faculty, increasing understanding of the latest advancements in fields such as biorobotics, neural interfaces, software engineering for robotics, and distributed AI.

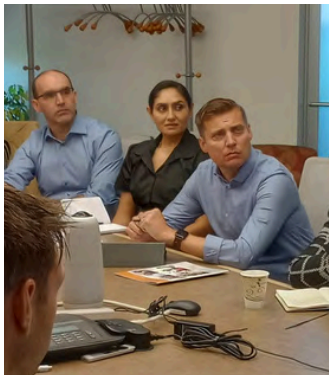
Fellows were introduced to four key areas of research:

- **Software Engineering for Robotics:** Dr. Chris Timperley, whose research focuses on improving the reliability and performance of robotic systems, delved into the challenges and opportunities in developing robust and reliable software for robots.
- **Distributed AI:** Mr. Michael Mattarock explored the potential of distributed AI to revolutionize decision-making processes, highlighting the importance of ethical considerations and the need for responsible AI development.
- **Biorobotics:** Professor Howie Choset, a renowned expert in robotics, showcased his groundbreaking work on snake robots, which have the potential to revolutionize search and rescue operations, medical procedures, and complex exploration.
- **Neural Interfaces:** Dr. Douglas Weber, a pioneer in neural engineering, discussed the development of brain-machine interfaces. These technologies hold the promise of restoring lost functions and enhancing human capabilities.

The DARPA fellows' visit to CMU underscored CMIST's commitment to fostering collaboration between academia and industry to help address critical challenges and shape the future of technology.

Military Fellows Program

The Military Fellows Program welcomes senior service members from the Departments of Defense and Homeland Security, who bring their extensive leadership experience into the academic realm. While at CMU, fellows spend their time researching, engaging with faculty and scholars, participating in conferences, experiencing cutting-edge simulations, networking across the campus community, and providing mentorship to our students. The program integrates accomplished military and national security leaders into CMU's intellectually rich environment, focusing on the implications of technological innovations for security.



Major Bridget Pantaleon, Air Force

Maj. Pantaleon wrote a draft research paper titled, "Psychology and Technological Innovation in Defense: Understanding Stakeholder Dynamics in the Adoption of Advanced Technologies," presented on AI ethics and explainable AI while participating in a Human-Computer Interaction course, and coached the US White House team in a War Game Simulation course. She also participated in Cyber Policy as National Policy, Ethics of Emerging Technologies, and Digital Transformation.

Lieutenant Commander Pratiksha Patel, Navy

Lt. Cmdr. Patel demonstrated a commitment to professional development as evidenced by her participation in a diverse range of courses throughout her fellowship including Asian Strategies, The Future of Warfare, Diplomacy and Statecraft, and Data Visualization. LCDR Patel engaged in classroom discussion and enhanced students' understanding with real-world experience.

Commander Ken Sauerbrunn, Coast Guard

Cmdr. Sauerbrunn created a maritime domain awareness tool for his next assignment at the executive office on the US Coast Guard Cutter *Healy*. Using eight years of operational positioning data for the Coast Guard's icebreaker *Healy*, he built a map on internal DHS geospatial mapping software to visualize the positions of each annual trip and science missions. Using his findings he highlighted potential areas of geopolitical tension, indicated implications of future ice coverage, and suggested adjustments to the ship's routes for increased operational security.

Lieutenant Colonel Dan Zisa, Army War College

Lt. Col. Zisa's research focused on the evolving nature of warfare, specifically cyber mission readiness. He wrote a USAWC strategy research paper, entitled "Leveraging Behavioral Decision Science to Mitigate Risks for Defense Autonomous Systems Acquisition." He also taught a CMIST course on the Defense Planning, Programming, Budgeting, and Execution (PPBE) process, applying behavioral science to the acquisition decision-making process.

CMIST IN WASHINGTON

UNITED METHODIST
BUILDING

WASHINGTON OVERVIEW

Washington, DC, serves as the epicenter of policymaking, making it a strategic location for CMU to amplify its research impact. CMIST is dedicated to enhancing our university's influence in the capital. Our Capitol Hill headquarters is conveniently located across the street from the Supreme Court and the US Capitol building. Through our Washington Center, we facilitate strategic connections between our world-class researchers and influential policymakers, stimulating innovative collaborations that bridge the divide between theory and practice. By fostering a culture of interdisciplinary dialogue, we empower our faculty to address pressing societal issues and shape the future.

Expanding CMU's footprint in Washington, DC, remains a top priority for CMIST. Significant investments have been made to our DC offices, including hiring new faculty and staff, expanding executive education opportunities, modifying the curriculum, and renovating the office and classrooms to help support our growth. By attracting top talent, such as renowned lawyer and policy expert Harvey Rishikof, we are enhancing our academic programs and executive education initiatives. CMIST is also establishing a Studies Program for the Washington office, which we hope to highlight in next year's annual report.

WASHINGTON SEMESTER PROGRAM

The Carnegie Mellon University Washington Semester Program (CMU/WSP) sponsored by CMIST, offers undergraduate students from all majors at CMU a transformative semester in the nation's capital.

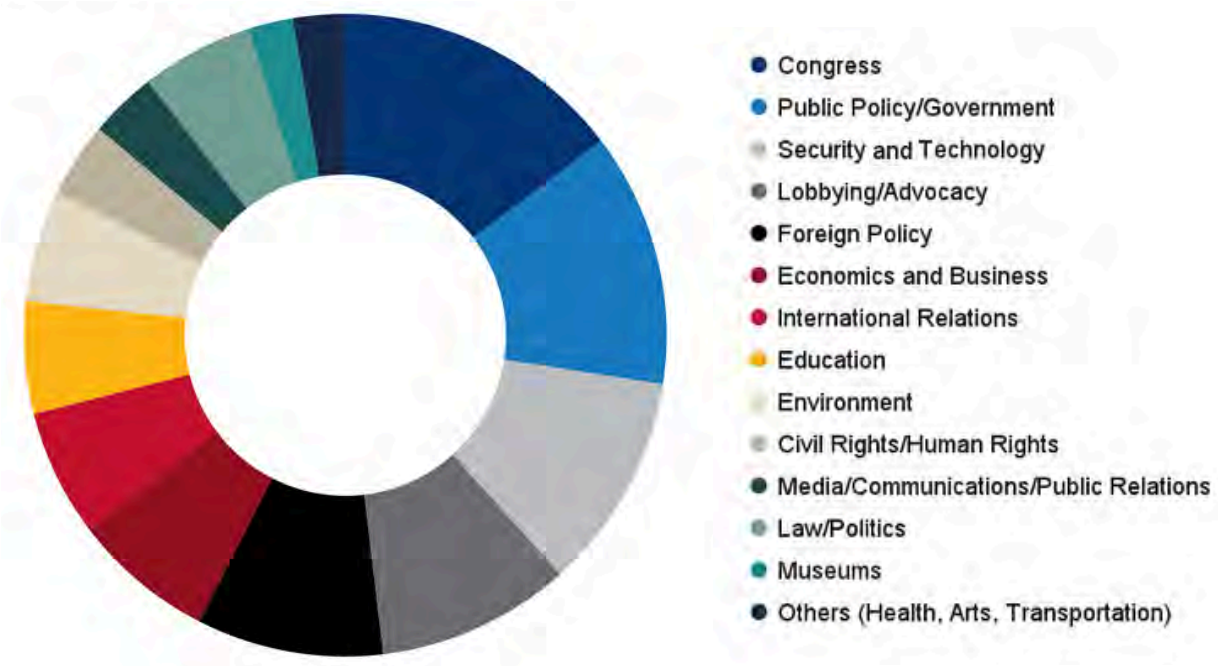
Key Program Features:

- **Immersive Learning Experience:** Students live, intern, and study in DC, gaining first-hand exposure to policymaking, international relations, and public service.
- **High-Impact Internships:** Students secure internships with prestigious organizations, applying classroom knowledge to real-world challenges.
- **Expert Faculty:** Participants learn from renowned CMU faculty, gaining insights into relevant research and policy debates.
- **Networking Opportunities:** Students connect with influential leaders, policymakers, and industry experts.
- **Accelerated Master's Track:** Participants are eligible to apply for the Master of Science in Security, Technology, and International Relations - Accelerated Master's Program (MS STAIR-AMP), earning their master's degree in just two semesters beyond their undergraduate degree.

By combining academic rigor with practical experience, CMU/WSP students develop critical thinking, problem-solving, and communication skills, preparing them for successful careers in public service, international affairs, and technology and security fields.

2024 marked the 10th anniversary of the CMU/WSP under CMIST, formerly IPS. Over the past 10 years, we have had 263 participants. The program has significantly enhanced the professional and personal growth of its participants, fostering valuable relationships with alumni and industry professionals.

During the 2023-2024 academic year, 24 students participated in the program, representing a wide variety of majors including decision science, business administration, economics and politics, and literature and culture. Their internship experiences spanned various organizations, from the American Foreign Policy Council to the American Bar Association to the Executive Office of the President.



Fall 2023 Cohort

STUDENT	INTERNSHIP	MAJOR(S)
Grace Ahn	US Securities and Exchange Commission - Division of Corporation Finance	Business Administration/ Ethics, History, and Public Policy
Sydney Burns	Office of Congressman Brad Sherman (D-CA 32nd District)	Literature and Culture/ Professional Writing
Kristen Choi	Feminist Majority Foundation	Social and Political History
Emily Cocea	LobbyIt	Decision Science/ Business Administration
Angela Huang	American Foreign Policy Council	Business Administration/ International Relations and Political Science
May Khin	Partnership for Public Service	Information Systems
Zoe Kramer	Office of Congressman Darrell Issa (R-CA 48th District)	Literature and Culture
Kyle McClain	US Supreme Court - Public Information Office	Ethics, History, and Public Policy / Philosophy
Sophie Peirano	US Department of Commerce - International Trade Administration	International Relations and Politics
Afomia Seyoum	Carmen Group	Business Administration
Vita Shats	American Bar Association - Death Penalty Representation Project	International Relations and Political Science
Elizabeth Zapanta	Executive Office of the President - United States Trade Representative (USTR)	International Relations and Political Science

Spring 2024 Cohort

STUDENT	INTERNSHIP	MAJOR(S)
Creighton Arrington	Hudson Institute - Center for Defense Concepts and Technology	International Relations and Political Science
Jamie Budhram	American Bar Association - Standing Committee on Law and National Security	Political Science, Security and Technology
Cristian Heichen	mEducation Alliance	Business Administration
Arika Manuel	Executive Office of the President - Drug Control Office	International Relations and Political Science/Environmental and Sustainability Studies
Daniel McNulty	Council on American Islamic Relations	International Relations and Political Science
Colleen Moosman	Office of Congressman Chris Deluzio (D-PA 17th District)	International Relations and Political Science/ Creative Writing
Trish Nhan	US Department of Commerce - Office of Policy and Strategic Planning	Economics and Politics
Arkadzi Rakach	mEducation Alliance	International Relations and Political Science
Emma Rogers	US Army Deputy Chief of Staff G-1 Office	Political Science, Security, and Technology
Hannah Romoff	American Association of People with Disabilities	Decision Science
Vanessa Vergara	Office of Congressman French Hill (R-AR 2nd District)	Business Administration
Helen Zhao	United States Senate Joint Economic Committee	Economics and Statistics

SUMMER INTERNSHIP SUPPORT

To support CMU students while in Washington, DC, CMIST administers two summer internship scholarship programs that help support unpaid or low-paying internships in Washington, DC, over the summer.

The J. Steele Gow Political Fellows

The J. Steele Gow Political Internship Fund, a fund of the Pittsburgh Foundation, provides undergraduate students from Western Pennsylvania with support to pursue summer internships in Washington, DC. These funds help alleviate financial burdens, allowing students to focus on their professional development.

STUDENT	INTERNSHIP	MAJOR	CLASS YEAR
Colleen Moosman	Office of Representative Chris Deluzio (D-PA)	International Relations and Political Science; Creative Writing	Senior
Elizabeth Zapanta	Office of Senator Bob Casey (D-PA)	International Relations and Political Science	Senior

Summer Friedman Fellows

The Milton and Cynthia Friedman Internship Program was established in 2000 through a generous gift from Cynthia Friedman, currently a trustee of the university, in memory of her husband, an alumnus of CMU. The grants encourage and support the participation of undergraduate and graduate students in policy-related internships located in the nation's capital. Since 2000, 375 CMU students have received funding to support their internships in the nation's capital. During summer 2024, seven students were selected.

STUDENT	INTERNSHIP	MAJOR	CLASS YEAR
Amanawit Assefa	mEducation Alliance	Political Science, Security, and Technology	Senior
Laila Bera	World Bank Group - Solutions for Youth Employment	Public Policy and Management	Master's
Nathan Brooks	Center for American Progress	Public Policy and Management	Master's
Elijah Dourado	Office of Senator John Fetterman (D-PA)	International Relations and Political Science	Junior
Samantha Elizalde	US Senate Health, Education, Labor, and Pensions Committee	Public Policy and Management	Master's
Marcus So-Holloway	National War College	International Relations and Political Science	Junior
Catherine Vassiliadi	Washington, DC, District Courthouse / US Department of Labor	International Relations and Political Science	Junior

"Washington, DC, has left an indelible mark on my education and growth as a person."

- Zoe Kramer, CMU/WSP Fall 2023; Friedman Fellow

"As I move forward, I carry with me not just the skills and knowledge I've gained but also a profound sense of gratitude and responsibility to pay it forward. I am more determined than ever to return to DC and continue my journey..."

- Vanessa Vergara, CMU/WSP Spring 2024; Friedman Fellow

"My time interning in the Senate was incomparable to any other experience I've had. I learned about concepts and processes that can't be found in a classroom, and I developed skills that will directly shape my future career in public service."

- Elizabeth Zapanta, CMU/WSP Fall 2023; Gow Fellow Summer 2024

OUR COMMUNICATIONS & MARKETING INITIATIVES

Carnegie Mellon Institute for Strategy & Technology

CMIST is an interdisciplinary institute that works across Carnegie Mellon University to address the risks and benefits of emerging technologies in war and peace.

Carnegie Mellon University

Carnegie Mellon University

Master of Information Technology Strategy

MITS

The Master of Information Technology Strategy (MITS) is a cooperative endeavor of CMU's CMIST, the College of Engineering, and the School of Computer Science

CMU WSP

Carnegie Mellon University

Washington Semester Program

PROGRAM GUIDE

From embassies to nongovernmental organizations, think tanks to advocacy organizations, government agencies to congressional offices, and consulting firms to media outlets, Washington, DC, is the center for many political, international relations, and public policy activities.

BRAND STRATEGY & ROLLOUT

Over the past year, CMIST has implemented a comprehensive marketing strategy to launch the new CMIST brand and enhance our visibility and reach. We introduced CMIST merchandise, including jackets, coffee mugs, and laptop stickers, to engage our community and promote our brand. We also provided branded gifts to graduating students and special guests including, CMIST embossed Moleskine notebooks as well as pen and pencil sets.

We also spearheaded various marketing campaigns to promote our current and recently launched academic programs and events, creating a repository of high-quality images and graphics that can be used for future marketing purposes. To provide informative resources, we developed handouts and brochures for CMIST's academic programs as well as a general one-pager and trifold, providing concise and informative resources about CMIST for our audiences.

On social media, we continue to generate daily branded content, highlighting our faculty publications, media mentions, events, and student achievements. For our events, we display branded materials, such as programs, signs, retractable banners, and printed materials. These efforts have contributed to increased brand awareness, engagement, and overall success for CMIST. As we look ahead, we will continue to explore new marketing opportunities and refine our strategies to ensure that CMIST remains a leading institution in its field.

WEBSITE LAUNCH & BRANDING

In August 2023, we launched a new CMIST website, aligning with our refreshed brand identity and expanded mission. The development of this website was approached with great effort and care, ensuring that it accurately reflected our existing programs while building on the foundation established by the Institute for Politics and Strategy (IPS).

Expansion to Support New Academic Programs

With the introduction of new academic programs, the website was further expanded to provide students with a comprehensive understanding of our offerings. This foundational year has set the stage for measuring future activity and growth.

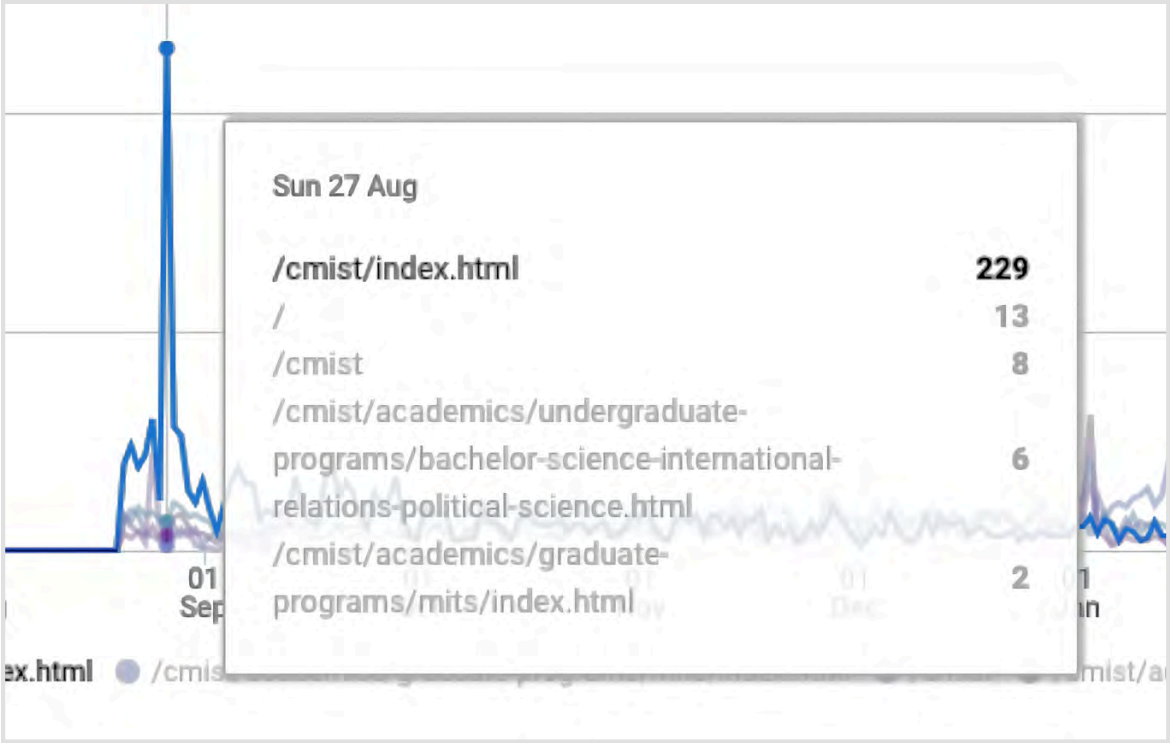
User Engagement Metrics

This year, we are pleased to report meaningful engagement. Searches for our academic programs, including the CMU/WSP, ranked in the top five most clicked searches and were among the most visited landing pages. The search's high click-through rates, the number of clicks a post receives divided by the number of impressions, indicate strong interest and engagement from our users.

Search Engine Optimization (SEO) Success

More than half of our new users arrived at our site through organic searches, highlighting the success of our sizable effort to improve the website SEO. Additionally, referrals, from sources like our newsletter, and organic social traffic accounted for approximately 8% of new user visits. This grounding provides a strong baseline for us to build upon. The CMIST communications team takes an agile approach to website design, regularly assessing areas for improvement in user experience.

The enthusiasm surrounding our website launch was undeniable, leading to a remarkable surge of 229 visitors in just one day. Overall, the new CMIST website has been a significant milestone, laying a robust foundation for future growth and engagement.



SOCIAL MEDIA

Throughout the 2023-2024 academic year, our social media channels were instrumental in promoting the launch of CMIST and establishing our brand identity. The rebranding,process for our social media channels encompassed a full redesign, including a change of handle names and a new brand identity. In addition to launching the CMIST brand, our social media strategy focuses on increasing growth and engagement through targeted campaigns that promoted our work and fostered a sense of belonging.

Instagram

Instagram is our primary social media platform for student engagement. We expanded our reach by sharing engaging content, highlighting student achievements, and showcasing faculty expertise.

The top three posts of AY 2023–2024 were an internal news article on the CMIST academic journey, a student spotlight on a DC internship, and our Director's CNN interview on Hamas. The release of the new CMIST logo and our student takeovers, in which students take over the social media accounts temporarily, also significantly increased reach and engagement.

The CMIST Instagram channel experienced a 23.5% increase in followers during the 2023–2024 academic year. While the majority of our followers (79.9%) are based in the US, we also have a significant international following, particularly in India, China, Qatar, and Indonesia. Within the US, our audience is primarily concentrated in major urban areas like Pittsburgh, New York, and Washington, DC, aligning with our target demographic.

X *(formerly Twitter)*

On X, posts featuring media mentions of CMIST faculty and their work, especially those connected to current events, were highly engaging. This platform attracts a more specialized audience of professionals, such as academics, researchers, and policymakers. The post with the highest number of impressions was also related to the Israel-Hamas war, featuring CMIST Director Audrey Kurth Cronin and the former US Ambassador to Israel, Daniel Kurtzer. Posts about our CMIST Scientists & Strategists speaker series, an in-person event later shared on our website and YouTube channel, performed exceptionally well. The CMIST communications team will continue to leverage faculty expertise in our content as well as share relevant materials related to current events to help drive engagement. Overall we saw a roughly 10% increase in followers on X over the past year.

Facebook

Facebook is a popular platform for reaching parents and the extended families and communities of current and prospective students. This is one of our slower growth areas, increasing our following by less than 5%. However, we did have a healthy engagement rate with those who do follow our page. Our top posts, as indicated by likes and reactions, focused on undergraduate internships, congratulations towards students, and highlights of the personal and professional achievements of the CMIST community. We will continue to use this platform to showcase the student experience and celebrate the achievements of our CMIST community in order to continue fostering a sense of community, while simultaneously experimenting with new types of content which may help diversify our feed and reach a wider audience.

LinkedIn

The CMIST LinkedIn channel has been an area of impressive growth, nearly tripling its follower count, thanks in part to our rebrand. Posts about undergraduate experiences, alumni, and faculty expertise performed well. Notably, followers showed particular interest in content related to MITS alumni and faculty expertise, such as an article about a faculty member's involvement in political redistricting. Our followers are primarily US-based, concentrated in DC, New York, and Pittsburgh. Many of our followers work in business development, research, education, and engineering roles. We will continue to expand our content to include more topics related to professional development and faculty output.

YouTube

In November of 2023, we expanded our social media presence to include YouTube. Over the past year we published 45 videos to YouTube, ranging from overviews of our academic programs and faculty highlights to our recorded speaking engagements.

The CMIST website drives over 55% of our video views. The remaining 45% comes from YouTube's discovery features, suggesting strong potential to reach a wider audience. Throughout the year, our channel received over 2,300 views with nearly 200 hours of watch time. The top-performing video, a conversation with Generals Laura and Jim Richardson, garnered 684 views. This suggests audience interest in insights from senior leaders. We will continue to produce high-quality content to further grow our channel.

Boomers, Doomers, and the Politics of Technology
FEATURING
Prof. Sarah Kreps
John L. Wetherill Professor, Cornell University
Director, Tech Policy Institute

Carnegie Mellon University
Meet
BARUCH FISCHHOFF
University Professor

CONVERSATIONS WITH SENIOR LEADERS
Gen. Laura Richardson & Lt. Gen. (Ret.) Jim Richardson

Carnegie Mellon University
Meet
JOSHUA SCHWARTZ
CMIST Assistant Professor

Learn about
MITS
Master of Information Technology Strategy (MITS)
PLAY

Carnegie Mellon University
84-363 & 84-663
Click. Hack. Rule: Understanding the Power & the Perilof Cyber Conflict
With Prof. Nadiya Kostyuk

Carnegie Mellon University
84-309 & 84-609
American Political Divides: and Great Debates
With Prof. Jonathan Cervas

Power to the People: How Accessible Lethal Technology Alters War and Peace
FEATURING
Prof. Audrey Kurth Cronin
Director, Carnegie Mellon Institute for Strategy & Technology
Trustees Professor

CONVERSATIONS WITH SENIOR LEADERS
Prof. Audrey Kurth Cronin & Lt. Gen. (Ret.) Jim Richardson

The Exceptions:
How 16 Women Started a Revolution in Science, and What it Means for Us Today
FEATURING
Kate Zernike
Award-winning reporter for The New York Times
Author

Carnegie Mellon University
84-274 & 84-674
An Introduction to Technology and War
With Prof. Josh Schwartz

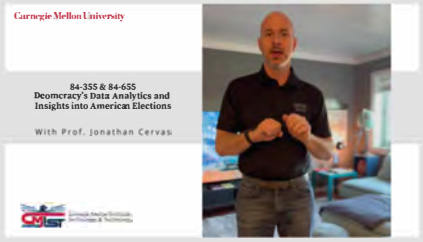
Carnegie Mellon University
Meet
JUSTIN CANFIL
CMIST Assistant Professor

Carnegie Mellon University
84-367 & 84-667
The Politics of Antisemitism
With Prof. Daniel Silverman

Carnegie Mellon University
Meet
IGNACIO ARANA
CMIST Assistant Professor

Forgotten Warriors:
The Long History of Women in Combat
FEATURING
Dr. Sarah Percy
Associate Professor, University of Queensland
Author

CONVERSATIONS WITH SENIOR LEADERS
Dr. Patrick Cronin & Admiral (Ret.) James Foggo


Carnegie Mellon University
84-355 & 84-655
Deomcracy's Data Analytics and Insights into American Elections
With Prof. Jonathan Cervas

Carnegie Mellon University
84-280
Popcorn & Politics: American Foreign Policy at the Movies
With Prof. Josh Schwartz

Beyond Dual Use:
Rethinking the Way We Understand and Govern Security Concerns in Science and Technology
FEATURING
Dr. Sam Weiss Evans
Senior Policy Advisor, National Security Commission on Emerging Biotechnology

Carnegie Mellon University
Meet
DANIEL SILVERMAN
CMIST Assistant Professor

CMIST EVENTS

Fall 2023

August

8/25/2023 - Gateway Clipper Sightseeing Cruise

8/26/2023 - Friedman Fellows Roundtable Event

8/29/2023 - MITS Alumni Roundtable

8/30/2023 - CMIST Welcome Back Breakfast

8/31/2023 - Military Community Reception

September

9/12/2023 - CMIST Faculty Workshop on Generative AI with Vince Sha

9/19/2023 - Federal Resumes and USA Jobs Info Session

9/20/2023 - CMU-PA Delegation Welcome Event Washington, DC

October

10/24/2023 - CMIST Undergraduate Student Town Hall and Dinner

10/30/2023 - CMIST's Politics and Pie

November

11/15/2023 - CMIST Military Affiliated Luncheon

11/16/2023 - Alumni Roundtable with Julia Adams

December

12/5/2023 - CMIST Faculty and Staff Holiday Party

12/6/2023 - CMIST Graduate Student Town Hall

12/6/2023 - CMIST Cookies & Cocoa Stress Relief

12/7/2023 - CMIST Hosted Dietrich Graduate Student Holiday Party

12/8/2023 - MITS Capstone Presentations

12/12/2023–12/14/2023 - CMIST's AI Bootcamp for USCG

Spring 2024

January

1/16/2024 - CMU/WSP DC Walking Tour

1/23/2024 - Scientists & Strategists: Boomers, Doomers, and the Politics of Technology

February

2/7/2024 - US Army War College International Fellows Visit

2/20/2024 - Scientists & Strategists: Power to the People

March

3/22/2024 - Lawfully Speaking: Who's Afraid of International Law?

3/26/2024 - Scientists & Strategists: Forgotten Warriors

3/27/2024 - Why Global Realignment is Happening (for NROTC)

3/28/2024 - CMIST's Politics & Pie

April

4/16/2024 - Scientists & Strategists: Beyond Dual Use

4/17/2024 - CMIST Fellows Farewell

4/23/2024 - AI Tools Workshop

4/23/2024 - Scientists & Strategists: The Exceptions

May

5/10/2024 - CMIST Diploma Ceremony

Lawfully
Speaking

CMIST NEWS

The CMIST Communications team had a productive year in 2023-2024, publishing a total of 21 articles. This averages to two articles per month, covering a diverse range of topics including events, new hires, initiatives, and research at CMIST. In addition to our own team's contributions, we collaborated with student writers on various projects and articles. We also partnered with Dietrich College to co-publish several articles.

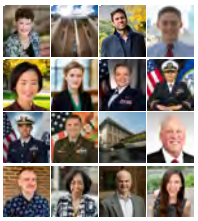
Audrey Kurth Cronin To Lead Carnegie Mellon Institute for Strategy & Technology

Republished Dietrich article

August 15, 2023
By Dietrich Comms Team

A Seat at the Table: Friedman Fellows Engage in Roundtable Discussion with the Friedman Family

September 08, 2023
By CMIST Comms Team



Exciting Arrivals: Introducing CMIST's Newest Faculty, Fellows, and Staff

September 25, 2023
By CMIST Comms Team

CMU Honors Military and Veteran Communities

October 04, 2023
By Abby W. Schachter

Featured Faculty: Dan Silverman

Republished Dietrich article

November 13, 2023
By Dietrich Comms Team

From Uber to Entrepreneur: The Career Path of a MITS Alumnus

November 20, 2023
By Arden Ryan

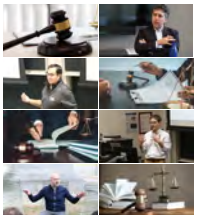
Faculty Spotlight: Joshua Schwartz

Republished Dietrich article

December 11, 2023
By Stacy Kish

Redrawing Lines: Jonathan Cervas Evaluates Wisconsin's Legislative Maps

January 23, 2024
By Lindsay Marcellus



Demystifying Democracy: CMIST Unveils a New Minor in American Politics and Law

February 01, 2024
By Lindsay Marcellus

CMIST Launches Pioneering Program in Politics, Security, and Technology

February 01, 2024
By Lindsay Marcellus

CMIST Expands Expertise with Three New Faculty

February 08, 2024
By Lindsay Marcellus

Pinckney Picked as Pickering Fellow

Republished Dietrich article

February 14, 2024
By Stefanie Johndrow

A Decade of Learning in the Heart of the Nation: Washington Semester Program Celebrates Tenth Anniversary

March 14, 2024
By Lindsay Marcellus

Forging the Future: US Army War College International Fellows Visit CMU

March 28, 2024
By CMIST Comms Team

Trouble with Treaties: CMIST Law Forum Debuts with John Bellinger

April 04, 2024
By Aleksaundra Handrinos

Politics & Pie: A Tasty Way to Explore CMIST Courses

April 08, 2024
By Jess Regan

Measuring Bias: Kate Zernike Shares How Exceptional Women Are Not the Exception

April 30, 2024
By Jess Regan

Where Power Lies: Conference Explores Civil-Military Relations

May 09, 2024
By Catherine (Ekaterini) Vassiliadi

Strategic Thinking Through Simulation: Bringing a Regional Summit to the Classroom

May 14, 2024
By Lindsay Marcellus

From Declaration to Graduation: And Everything In Between

June 11, 2024
By Lindsay Marcellus

A Fulfilling First Year: A Look at Four Formative CMIST Courses

June 26, 2024
By Aleksaundra Handrinos

CMIST NEWSLETTER

We successfully launched CMIST Connections, an internal newsletter, designed to keep CMIST students, staff, and faculty informed about the latest developments, achievements, and opportunities within our institute. Since its inception in February 2024, the newsletter has quickly gained traction among the CMU community and we are working to increase the number of individuals subscribed.

Key metrics from the first four editions of the monthly newsletter demonstrate a high level of engagement. Over 70% of our recipients consistently opened the newsletters opened the newsletters and generated a consistent click-through rate. This suggests that readers actively explore the content and are interested in what we we share. Furthermore, out of the four newsletters sent out in the spring, only two of the nearly 800 subscribers unsubscribed, which shows a positive reception.

We are encouraged by these early results and remain committed to providing valuable content that fosters a stronger sense of connection within CMIST and the greater Carnegie Mellon University community.

LOOKING FORWARD

LOOKING FORWARD

The future is bright for CMIST as we enter our second year and we are energized by upcoming events and opportunities.

In September 2024, CMIST will host a celebratory event marking our inaugural year with a series of events promoting digital diplomacy, featuring keynote speaker Nathaniel C. Fick, Ambassador at Large for Cyberspace and Digital Policy.

We are also launching new educational opportunities, including professional educational courses and our new Master of Science in Security, Technology, and International Relations (MS STAIR), starting in fall 2025. This 12-month program, with coursework in Pittsburgh and a summer internship in Washington, DC, will prepare professionals for strategic leadership roles by providing training in political science, international relations, and emerging technology.

To support our growing team, this summer we expanded our physical space to include seven offices on the second floor of Posner Hall. This fall, CMIST will continue its growth trajectory by recruiting tenure-line faculty and additional staff to support its broadening initiatives. While expanding our physical presence, we also seek to enhance our national and international reputation and impact.

As we look ahead, CMIST remains committed to advancing wise strategy and technology in the public interest. We will focus on the highest academic standards, expanding faculty expertise, increasing our engagement in policy analysis and discussions, developing new professional programs, and further strengthening our presence in Washington, DC. We look forward to breaking new ground — building governance models that will serve future generations.

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A YEAR OF NEW BEGINNINGS

23

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CMIST ANNUAL REPORT