**Erica D. Lonergan**

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201.745.6861

**Professional Experience**

**Columbia University, New York, NY**

Assistant Professor, School of International and Public Affairs, July 2023-Present

Executive Director, New York Cyber Task Force, July 2022-Present

Adjunct Research Scholar, Saltzman Institute of War and Peace Studies, September 2014-June 2023

**U.S. Army War College, Carlisle, PA**

Member, Board of Visitors, May 2023-Present

**Cyberspace Solarium Commission 2.0, Washington, DC**

Senior Advisor, March 2022-Present

**United States Military Academy, West Point, NY**

Fellow, Army Cyber Institute, July 2018-October 2020 and December 2021-June 2023,

Assistant Professor, Department of Electrical Engineering and Computer Science, July 2018-October 2020

Assistant Professor, Department of Social Sciences, July 2014-May 2017 and December 2021-June 2023

Executive Director, Rupert H. Johnson Grand Strategy Program, July 2014-May 2017

**Office of the Secretary of Defense, Washington, DC**

Writer, Department of Defense Cyber Strategy, June 2022-June 2023

Writer, Cyber Posture Review, March-June 2022

**Carnegie Endowment for International Peace, Washington, DC**

Senior Fellow, Technology and International Affairs Program, April 2021-November 2021

**Atlantic Council, Washington, DC**

Senior Fellow, New American Engagement Initiative, Scowcroft Center for Strategy and Security, October 2020-April 2021

**Cyberspace Solarium Commission, Washington, DC**

Senior Director and Lead, Task Force One, June 2019-April 2021

**Council on Foreign Relations, New York, NY**

International Affairs Fellow, September 2017-July 2018

JPMorgan Chase & Co., Global Cyber Partnerships & Government Strategy

United States Cyber Command, Cyber National Mission Force

**Education**

**Columbia University, New York, NY**

*Ph.D., Political Science*, received May 2014

Dissertation: “Friends with Benefits? Power and Influence in Proxy Warfare”

*M.Phil., Political Science*, received February 2011

*M.A., Political Science*, received May 2009

*B.A., Political Science and English,* *magna cum laude*,received May 2007

**Teaching Experience**

* Columbia University, SIPA & Political Science Department
  + INAF U6529: Cyberspace in Strategy and Grand Strategy
  + GU4804: Cyber Strategy and International Politics
* West Point, Department of Social Sciences
  + SS395: International Security Studies
  + SS384: International Security and Strategy
  + SS457: Advanced Topics in Grand Strategy
  + XH397: Grand Strategy Field Study
  + SS357: Advanced Introduction to International Relations
  + SS307: Introduction to International Relations
* West Point, Department of Electrical Engineering and Computer Science
  + IT460: Cyber Policy, Strategy, and Operations
  + IT400: Information Technology Professional Considerations
  + CS400: Computer Science Professional Considerations
  + IT105: Introduction to Computing and Information Technology

**Books**

*Escalation Dynamics in Cyberspace*. With Shawn W. Lonergan. Oxford University Press: Bridging the Gap Series (2023).

*National Security Reform for a New Era: Reassessing the National Security Act of 1947*. Ed. with Heidi Demarest. Routledge (2018).

**Journal Articles**

“The Power of Beliefs in US Cyber Strategy: The Evolving Role of Deterrence, Norms, and Escalation.” With Jacquelyn Schneider. *Journal of Cybersecurity* (March 2023).

“Cyber Operations and Signaling: An Exchange — The Authors Reply.” With Shawn W. Lonergan. *Security Studies* (December 2022).

“Cyber Operations, Accommodative Signaling, and the De-Escalation of International Crises.” With Shawn W. Lonergan. *Security Studies* (February 2022).

“What is the Future of Cyber Deterrence?” With Mark Montgomery. *SAIS Review of International Affairs* (Summer-Fall 2021).

“Deterrence by Denial in Cyberspace.” With Shawn W. Lonergan. *Journal of Strategic Studies* (August 2021).

“Cyber Threats and Vulnerabilities to Conventional and Strategic Deterrence.” With Mark Montgomery. *Joint Forces Quarterly* (Third Quarter, 2021).

“To Defend Forward, U.S. Cyber Strategy Demands a Cohesive Vision for Information Operations.” With Patrick Murphy. *Cyber Defense Review* (Fall 2020).

“Cyber Operations as Imperfect Tools of Escalation.” With Shawn W. Lonergan. *Strategic Studies Quarterly* (Fall 2019).

“Confidence Building Measures for the Cyber Domain.” With Shawn W. Lonergan. *Strategic Studies Quarterly* (Fall 2018).

“The Logic of Coercion in Cyberspace.” With Shawn W. Lonergan. *Security Studies* (Spring 2017).

“Can Status Calculate the Risks of Using Cyber Proxies?” With Shawn W. Lonergan. *Orbis* (Summer 2016).

“Hizbullah and the Iranian Nuclear Programme.” With Mira Rapp-Hooper. *Survival: Global Politics and Strategy* (August-September 2013).

“Allies and Airpower in Libya.” With Costantino Pischedda. *Parameters* (Spring 2012).

“The Cost of Empty Threats: A Penny, Not a Pound.” With Jack Snyder. *American Political Science Review* (August 2011).

**Book Chapters**

“Evaluating Assumptions About the Role of Cyberspace in Warfighting: Evidence from Ukraine.” With Margaret W. Smith and Grace B. Mueller. *15th International Conference on Cyber Conflict: Meeting Reality*, NATO Cooperative Cyber Defense Center of Excellence (2023).

“The Promise and Perils of Allied Offensive Cyber Operations.” With Mark Montgomery. *14th International Conference on Cyber Conflict: Keep Moving*, NATO Cooperative Cyber Defense Center of Excellence (2022).

“Public-Private Partnerships in Cyberspace in an Era of Great-Power Competition.” With Shawn W. Lonergan. In Jacquelyn G. Schneider, Emily O. Goldman, and Michael Warner, eds., *Ten Years In: Implementing Strategic Approaches to Cyberspace* (U.S. Naval War College, Newport Papers 45, 2020).

**Policy Articles and Op-Eds**

“Are We Asking Too Much of Cyber?” With Michael Poznansky. *War on the Rocks*. May 2, 2023.

“The Implications of Cyber Proxies in the Ukraine Conflict.” *Center for Strategic and International Studies*. May 2023.

“Securing the United States Defense ICT Supply Chain of the Future.” With Gary Corn and Mary Brooks. *R Street*. April 20, 2023.

“Evaluating the National Cyber Force’s ‘Responsible Cyber Power in Practice.’” *RUSI*. April 14, 2023.

“Experts Reflect on the First Year of the Ukraine War.” *Inkstick*. March 22, 2023.

“What Impact, If Any, Does Killnet Have?” With Maggie Smith and Nick Starck. *Lawfare*. October 21, 2022.

“Who Attacked Montenegro? The Moral and Strategic Hazards of Misassigning Blame.” With Maggie Smith. *Political Violence at a Glance*. September 21, 2022.

“What Are the Implications of the Cyber Dimension of the China-Taiwan Crisis?” With Grace B. Mueller. *Council on Foreign Relations: Net Politics*. August 15, 2022.

“Want Better Cyber Policy? Talk to Social Scientists.” With Maggie Smith. *Modern War Institute*. July 21, 2022.

“NATO’s Credibility Is on the Line with Its Cyber Defense Pledge. That’s a Bad Idea.” With Sara B. Moller. *Politico*. April 27, 2022.

“Cyber Signaling and Nuclear Deterrence: Implications for the Ukraine Crisis.” With Keren Yarhi-Milo. *War on the Rocks*. April 21, 2022.

“The Cyber-Escalation Fallacy: What the War in Ukraine Reveals about State-Based Hacking.” *Foreign Affairs*. April 15, 2022.

“What Ukraine Shows About Cyber Defense and Partnerships.” With Brandon Valeriano. *The National Interest*. March 17, 2022.

“Putin’s Invasion of Ukraine Didn’t Rely on Cyberwarfare. Here’s Why.” With Shawn W. Lonergan, Brandon Valeriano, and Benjamin Jensen. *The Washington Post*. March 7, 2022.

“What do Russia’s Cyber Moves Mean for the Ukraine Crisis?” With Shawn W. Lonergan. *The Washington Post*. January 12, 2022.

“What the U.S. Should Learn from U.K. Cyber Strategy.” With Jacquelyn Schneider. *The Wall Street Journal*. December 22, 2021.

“Cyber Challenges for a New National Defense Strategy.” With Jacquelyn Schneider. *War on the Rocks*. December 17, 2021.

“Cyber Command Is in the Ransomware Game—Now What?” With Lauren Zabierek. *Lawfare*. December 16, 2021.

“Promoting Global Financial Resilience Against Cyber Threats Through an Operational Collaboration Approach.” *Think 20 Italy 2021* (September 2021).

“What Is Cyber Command’s Role in Combating Ransomware?” With Lauren Zabierek. *Lawfare*. August 18, 2021.

“What Makes This Attribution of Chinese Hacking Different.” *Carnegie Endowment for International Peace*. July 22, 2021.

“After the Biden-Putin Summit, U.S.-Russia Expert Consultations Should Focus on the Financial Sector.” *Lawfare*. July 12, 2021.

“The Challenge of Educating the Military on Cyber Strategy.” With Mark Montgomery and Brandon Valeriano. *War on the Rocks*. June 25, 2021.

“The Colonial Pipeline Incident Shows the Need for Broader Thinking about Cyber Resilience.” *Council on Foreign Relations: Net Politics*. May 20, 2021.

“Cyberspace Is Neither Just an Intelligence Contest, nor a Domain of Military Conflict; SolarWinds Shows Us Why It’s Both.” *Lawfare*. May 12, 2021.

“Closing the Gaps in Cybersecurity.” *Inkstick*. April 19, 2021.

“Punitive Response to SolarWinds Would Be Misplaced, But Cyber Deterrence Still Matters.” *Russia Matters, Harvard Kennedy School*. March 31, 2021.

“Want to Tell Russia to Stop Hacking U.S. Systems? Here’s What Works – And What Doesn’t.” With Jacquelyn Schneider. *The Washington Post*. March 16, 2021.

“A Mom’s Guide to Deterrence and Coercion.” With Emma Ashford. *Atlantic Council*. March 16, 2021.

“Was SolarWinds a Different Type of Cyber Espionage?” *Lawfare*. March 9, 2021.

“Assumption #2: Strategies of Coercion Are Effective.” *Atlantic Council*. March 4, 2021.

“Reality Check #3: The Uses and Abuses of Deterrence.” *Atlantic Council*. March 1, 2021.

“Reality Check #2: Economic Sanctions Should Not Always Be the Go-To Foreign Policy Tool.” *Atlantic Council*. February 22, 2021.

“Elevating ‘deterrence by denial’ in US defense strategy.” With Benjamin Jensen and Mark Montgomery. *Atlantic Council*. February 4, 2021.

“Time to End the Dual Hat?” *Council on Foreign Relations: Net Politics*. February 3, 2021.

“A Grand Strategy Based on Resilience.” *War on the Rocks*. January 4, 2021.

“The SolarWinds Compromise and the Strategic Challenge of the Information and Communications Technology Supply Chain.” *Council on Foreign Relations: Net Politics*. December 22, 2020.

“Russia’s Hack Wasn’t Cyberwar: That Complicates U.S. Strategy.” With Jacquelyn Schneider. *WIRED*. December 17, 2020.

“3 Lessons from Russia’s Cyberhack into U.S. Agencies.” With Jacquelyn Schneider. *The Washington Post*. December 16, 2020.

“Emerging Technology and a Reimagined U.S.-EU Partnership.” *Council on Foreign Relations: Net Politics*. December 9, 2020.

“Money and Influence: The Economic Aspects of Great Power Competition.” *The Modern War Institute*. December 2, 2020.

“Biden Will Think Globally to Solve Domestic Issues. The Post-COVID World Will Demand It.” *New Atlanticist*, November 9, 2020.

“Defending the 2020 Election: It’s Not Time to Celebrate (Yet),” *Council on Foreign Relations: Net Politics*, November 9, 2020.

“Cyber Command’s Role in Election Defense: Important, But Not a Panacea,” *Lawfare*, October 30, 2020.

“Congress Should Act to Ensure Weapon Systems’ Cybersecurity.” *Council on Foreign Relations: Net Politics*. September 10, 2020.

“Persistent Vulnerabilities: Strengthening Cybersecurity Requirements for the Department of Defense.” *Council on Foreign Relations: Net Politics*, June 17, 2020.

“Cyber Command Needs New Acquisition Authorities.” *Lawfare*, May 12, 2020.

“The Department of Defense Should Not Wage Cyber War Against Criminal Hackers During the Coronavirus Crisis.” *Council on Foreign Relations: Net Politics*, April 29, 2020.

“U.S. Cyber Command’s Malware Inoculation: Linking Offense and Defense in Cyberspace.” With Shawn W. Lonergan. *Council on Foreign Relations: Net Politics*, April 22, 2020.

“To Defend Forward, the U.S. Must Strengthen the Cyber Mission Force.” With Shawn W. Lonergan. *Lawfare*, March 13, 2020.

“Operationalizing Defend Forward: How the Concept Works to Change Adversary Behavior.” *Lawfare*, March 12, 2020.

“Ensuring the Cybersecurity and Resilience of the Defense Industrial Base.” With Shawn W. Lonergan. *Lawfare*, March 12, 2020.

“Defend Forward as a Whole-of-Nation Effort.” With Mark Montgomery. *Lawfare*, March 12, 2020.

“Israel Responded to a Hamas Cyberattack with an Airstrike. That’s Not a Big Deal.” With Jacquelyn Schneider. *The Washington Post*, May 9, 2019.

“The Overlooked Military Implications of the 5G Debate.” With Shawn W. Lonergan. *Council on Foreign Relations: Net Politics*, April 25, 2019.

“What a U.S. Operation Against Russian Trolls Predicts about Escalation in Cyberspace.” *War on the Rocks*, March 22, 2019.

“Chinese Hackers are Stealing U.S. Defense Secrets: Here is How to Stop Them.” With Shawn W. Lonergan. *Council on Foreign Relations: Net Politics*, March 11, 2019.

“Banking on Cooperation: The U.S. Government and the Finance Industry Need to Work Together to Defend the Financial Sector from Cyber Threats.” *Lawfare*, October 3, 2018.

“Protecting Financial Institutions from Cyber Threats: A National Security Issue.” *Carnegie Endowment for International Peace*, September 24, 2018.

“What Do the Trump Administration’s Changes to PPD-20 Mean for U.S. Offensive Cyber Operations?” *Council on Foreign Relations: Net Politics*, September 10, 2018.

“The ‘Known Unknowns’ of Russian Cyber Signaling.” *Council on Foreign Relations: Net Politics*, April 4, 2018.

“Borghard on Perkovich and Levite, ‘Understanding Cyber Conflict: Fourteen Analogies.” *H-Diplo*, book review, March 24, 2018.

“Why Are There No Cyber Arms Control Agreements?” With Shawn W. Lonergan. *Council on Foreign Relations: Net Politics*, January 16, 2018.

“Lost in Cyber Translation? U.S. Cyber Signaling to North Korea,” *Council on Foreign Relations: Net Politics*, October 16, 2017.

“Making Sense of a Syrian Proxy War Gone Amok.” *The National Interest*, October 26, 2015.

“Will Air-Sea Battle Be ‘Sunk’ by Cyber Warriors?” With Shawn W. Lonergan. *The National Interest*, December 8, 2014.

“Why American Airpower Won’t Save Iraq from ISIS.” With Costantino Pischedda. *The National Interest*, June 25, 2014.

“Evading Invasion: Syria’s Chemical Weapons and Obama’s Audience Costs.” With Jack Snyder. *Political Violence @ a Glance*, December 13, 2013.

“Bombing Can Wait.” With Costantino Pischedda. *The National Interest*, September 12, 2013.

“Obama’s Syria Dilemma.” With Costantino Pischedda. *The National Interest*, August 31, 2013.

“The Danger of America’s ‘Proxy War.’” *CNN.com*, August 14, 2013.

“Arms and Influence in Syria: The Pitfalls of Greater U.S. Involvement.” *The Cato Institute*, Policy Analysis No. 734, August 7, 2013.

“Proxy War Can Have Dangerous Consequences.” *The Washington Post*, July 25, 2013.

“Behind the Egyptian Army’s Ultimatum.” With Kate Cronin-Furman. *The National Interest*, July 16, 2013.

“Hezbollah, Loyal to a Fault.” *The National Interest*, June 20, 2013.

**Forthcoming Scholarship**

“Cultural Change in Military Organizations: Hackers and Warriors in the U.S. Army.” With Jack L. Snyder.

“Evaluating Strategy: Applying a Bureaucratic Politics Lens to Cyber Strategy.” With Jacquelyn Schneider.

“What is the Role of Cyberspace in Grand Strategy?” With Michael Poznansky.

*Dangerous Liaisons: Power and Influence in Proxy Alliances*. Book Manuscript.

**Grants**

Stanton Foundation Grant for research project on cyber operations and nuclear escalation risks, 2021-2022.

Charles Koch Foundation Grant for book project, “Dangerous Liaisons: Power and Influence in Proxy Alliances,” 2017.

Minerva Research Initiative Grant for book project, “National Security Reform for a New Era: Reassessing the National Security Act of 1947,” 2016.

**Conferences and Workshops**

“Report Launch: Evolving Cyber Operations and Capabilities.” With Paul Chichester, Army Ertan, Melanie Garson, Julia Voo, and James A. Lewis. *Center for Strategic and International Studies.* May 18, 2023.

“Spies and Strategy in Cyberspace: New Frontiers in Cyber Theory and Policy.” *Georgia Institute of Technology*. April 27, 2023.

“UK Responsible Cyber Power in Practice?” With Tim Stevens, Richard Harknett, Taylor Grossman, and Andrew Dwyer. *Offensive Cyber Working Group*. April 6, 2023.

“The Dynamics of Escalation in Cyberspace.” With Shawn W. Lonergan. *Council on Foreign Relations.* April 3, 2023.

“Do Cyber Operations Escalate Conventional Conflict? Examining Evidence from Ukraine.” With Maggie Smith and Grace Mueller. Paper Presented at the University of California, San Diego workshop, “Cyber Escalation in Conflict: Bridging Policy, Data, and Theory.” February 23-24, 2023.

“Cyber Operations in Modern Warfare: Ukraine and Beyond.” With Maggie Smith, Grace Mueller, Brandon Valeriano, and Gavin Wilde. *The Modern War Institute at West Point*. November 7, 2022.

“What is Strategic Culture in Cyberspace and How Can We Measure It?” With Jack L. Snyder. Paper Presented at the American Political Science Association Annual Convention, Montreal, Canada. September 17, 2022.

“The Promise and Perils of Allied Offensive Cyber Operations.” Paper presented at the *14th International Conference on Cyber Conflict: Keep Moving*, NATO Cooperative Cyber Defense Center of Excellence, Tallinn, Estonia. June 1, 2022.

“Hacking in Plain Sight: Offensive Cyber Operations in the Russo-Ukranian War.” With Megan Stifel, Silas Cutler, and Marc Rogers. *Institute for Security and Technology*. May 11, 2022.

“Strategic and Operational Working Group.” *Cyber National Mission Force, U.S. Cyber Command.* Spring 2022.

“Lessons Learned from a Decade of US Cyber Strategy and Implications for the Future.” Presentation to *Department of State, Bureau of Educational and Cultural Affairs*. March 30, 2022.

“A Decade of US Cyber: Lessons about Cyber, US Strategy, and International Relations.” With Jacquelyn Schneider. *Center for Global Security Research, Lawrence Livermore National Laboratory*. March 9, 2022.

“Cyber Conflict in the Fifth Domain.” With Mark Montgomery. Paper presented at *Johns Hopkins University School of Advanced International Studies*. March 4, 2022.

“Emerging Questions: Cybersecurity and Space.” Workshop hosted by *Microsoft*. March 4, 2022.

“The Implications of Cyber Operations for Escalation and Crisis Dynamics.” With Shawn W. Lonergan. *Johns Hopkins University, Applied Physics Laboratory*. February 16, 2022.

“The Promise and Perils of Allied Offensive Cyber Operations.” Presented at *West Point NATO Strategic Concept Seminar*. February 3, 2022.

“Reprising Cyber Deterrence Concepts.” Presented at the *Naval War College* Integrated Deterrence Exercise. December 14, 2021.

“The Strategic Stability Risks of Offensive Cyber Operations and How to Mitigate Them.” *Arms Control Association*. December 9, 2021.

“Drivers of Cyber Strategy.” *The Cato Institute*. November 16-18, 2021.

“What is the Role of Offensive Cyber Operations in Denial Strategies?” *Offensive Cyber Working Group*. November 9, 2021.

“Disruptive Technology and American Influence in the Coming Decade.” With Ron Green, Adam Segal, and Ricky Waddell. *72nd Annual Student Conference on U.S. Affairs, West Point*. November 3, 2021.

“Tribeca Cybersecurity Summit.” With Chris Ballod, Kathleen McGee, and Michael Pastor. *New York Law School*. October 28, 2021.

“Preparing the Army on the Homefront.” With Mackenzie Eaglen, Brad Gericke, Michael O’Hanlon, and Nancy Colllins. *The Modern War Institute: USMA Class of 2006 War Studies Conference*. October 5, 2021.

“Ransomware: Impacts and Insights.” With Lauren Zabierek, Stephanie Duguin, Klara Jordan, Janet Rathod, and Megan Stifel. *Harvard Kennedy School, Belfer Center*. September 30, 2021.

“Countering Cyber Threats to Critical Infrastructure: What’s Next.” With Rep. Jim Langevin, Tom Fanning, and Cheri McGuire. *Carnegie Endowment for International Peace*. September 17, 2021.

“Cyberspace Solarium Commission.” With Mark Montgomery. *Aviation Cybersecurity Summit*. September 21, 2021.

“New Rules in the Global Tech Race.” With Sen. Gary Peters, Mayor Bill Pedito, and Zack Cooper. *POLITICO Tech Summit*. September 15, 2021.

“Russian-U.S. Strategic Relations After the Geneva Summit.” With Elena Zinovieva, Oleg Shakirov, and Dmitri Alperovitch. *Institute for International Studies*, Moscow, Russia. July 8, 2021.

“Is It Cyber Doom Yet? Ransomware and the Threat to Critical Infrastructure.” With Brandon Valeriano and Sean Lawson. *The Cato Institute*. June 16, 2021.

“Digital Technologies: Building Global Trust.” With Maria Chiarra Carrozza, Nicol Turner Lee, Heidi Tworek, Stefaan G. Verhulst, and Andrew Wyckoff. *T20 Spring Roundtables, Centre for International Governance Innovation and the Italian Institute for International Political Studies*. June 15, 2021.

“The Process of the U.S. Cyberspace Solarium Commission.” With Mark Montgomery and Brandon Valeriano. *CyCon Estonia 2021*, May 28, 2021.

“Operational Collaboration: Enhancing Cyber Readiness.” With Greg Rattray, Michael Daniel, and Christopher Button. *RSA Conference 2021*, May 20, 2021.

“Confidence & Trust: How to Build it in the Digital Domain.” With Szilvia Toth, Andreas Kuehn, Jurgen Altmann, and Thomas Mueller-Faerber. *Protestant Academy Loccum*, May 18, 2021.

“The Future of Supply Chain Security.” With Mark Montgomery and Mark Pomerleau. *C4ISRNET Conference*. April 21, 2021.

“Past as Prologue: Cyber and Space-Based Threats to Nuclear Deterrence.” Paper presented at the *International Studies Association Annual Convention*, April 6, 2021.

“Cyberspace and Public-Private Innovation.” With Jacquelyn Schneider, Amy Zegart, Peter Dombrowski, and Joseph Felter.” *Hoover Institution*, March 19, 2021.

“Cyber Security and U.S. Foreign Policy: Addressing Strategic and Policy Priorities in the New Administration.” With Chris Painter. *National Committee on American Foreign Policy*, March 19, 2021.

“Examining the SolarWinds Orion Hack: Implications for Government and the Private Sector.” With David Sanger, Bruce Schneier, and Camille Stewart. *Harvard Kennedy School, Belfer Center for Science and International Affairs, Intelligence and Cyber Projects*, February 3, 2021.

“Strategy in Cyberspace.” With Joshua Rovner, Jacquelyn Schneider, Nina Kollars, and Michael Warner. *American University, Center for Security Innovation, and New Technology*, February 1, 2021.

“Debate: After SolarWinds: DualHatting, and the Implications for a National Cybersecurity Strategy.” With Susan Hennessey, Bryson Bort, Robert Knake, and JD Work. *Institute for Security and Technology*, January 14, 2021.

“Supply Chain Security, Emerging Threats and Legal Fixes: A View from the Cyberspace Solarium Commission.” With Angus King, Matthew Waxman, and David Simon. *Columbia University Law School*, December 15, 2020.

“Secure and Competitive Markets in the Digital Age.” With Mike Gallagher, Mark Montgomery, and Tatyana Bolton. *R Street Institute*, December 2, 2020.

“Measuring Cyber and Information Operations.” With Benjamin Schechter and Emily Goldman. *Military Operations Research Society*, October 28, 2020.

“Defending Forward: U.S. Cyber Strategy and the 2020 Elections.” With Robert Knake and Carla Anne Robbins. *Council on Foreign Relations*, October 23, 2020.

“U.S. Cyber Strategy?” With Erik Gartzke, Ryan Maness, and Bryan Sparling. *Political Warfare Project, DoD Information Operations Center for Research, Naval Postgraduate School*, September 2, 2020.

“Advanced Analytics and the Internal Threat: Cyber Analytics at Mission Speed.” With Julie Ard and Harold T. Cole. *FCW/Noblis*. September 2, 2020.

“An International Strategy to Better Protect the Financial System against Cyber Threats (2021-2024).” *Carnegie Endowment for International Peace*. Workshop Series, August 4 and September 10, 2020.

“Defending Forward: The Cyberspace Solarium Commission’s View.” With Mark Montgomery, Val Cofield, and Tatyana Bolton. *Cyberspace Solarium Commission Digital Event Series*, June 17, 2020.

“USG-Private Sector Cooperation in the U.S.’s Defend Forward Activities in Cyberspace.” *UC Berkeley, Center for Long-Term Cybersecurity*, June 15, 2020.

“Preserve and Employ the Military Instrument of Power.” With Mark Montgomery and Brandon Valeriano. *Cyberspace Solarium Commission Digital Event Series*, May 27, 2020.

“The Strategy: Layered Cyber Deterrence.” With Mark Montgomery and Brandon Valeriano. *Cyberspace Solarium Commission Digital Event Series*, April 15, 2020.

“What Do We Know About Cyber Escalation?” With Aaron Brantly, Benjamin Jensen, and Brandon Valeriano. *The Atlantic Council*, February 12, 2020.

“Roundtable: Solarium Commission.” With Benjamin Jensen, Mark Montgomery, and Brandon Valeriano. *CyCon U.S.: Defending Forward*, November 20, 2019.

“Keynote: Cyberspace Solarium Commission.” *Columbia University*, November 8, 2019.

“Cyber Operations as Imperfect Tools of Escalation.” Paper presented at *The Cato Institute*, October 7, 2019.

“Roundtable: The Cyberspace Solarium Commission.” With Mark Montgomery. *The Aspen Institute*, October 2, 2019.

“Roundtable: Cyberspace Solarium Commission: Building a Comprehensive U.S. Cyber Strategy.” *Council on Foreign Relations*, September 11, 2019.

“Cybering in the Dark: Cyber Strategic Culture under Risk and Uncertainty.” With Jack Snyder. Paper presented at the *American Political Science Association Annual Meeting*, August 2019.

Contributor, “Defend Forward 2019 Critical Infrastructure War Game,” *U.S. Naval War College*, July 25-26, 2019.

“Policy Challenges, New and Old: Developing Effective Cyber Policy in the United States and Strengthening Latin America’s State-Owned Enterprises.” *Council on Foreign Relations*, May 3, 2019.

“Escalation Dynamics in Cyberspace.” With Shawn W. Lonergan. Paper presented at the *International Studies Association Annual Convention*, March 28, 2019.

“Strategic Culture in the Cyber Age.” With Jack Snyder. Paper presented at *Columbia University*, December 5, 2018.

“Reflections on Cyber Strategy and Policy: Lessons Learned from the Financial Sector and U.S. Cyber Command.” Presentation at *Columbia SIPA Cybersecurity Workshop*, September 10, 2018.

“Protecting the Financial System against Cyber Threats: Implications for National Security.” *Carnegie Endowment for International Peace*, June 27, 2018.

“Intelligence and Cyber Issues.” *Conflict & Cooperation in U.S.-Russia Security Relations, Harriman Institute, Columbia University*, March 23, 2018.

“Escalation Dynamics in Cyberspace.” With Shawn W. Lonergan. Paper presented at the *American Political Science Association Annual Meeting*, August 2017.

Conference Organizer, *West Point’s Annual Senior Conference, The 70th Anniversary of the National Security Act: Guiding Policymakers in a New Strategic Environment*, April 2017.

“Can Status Calculate the Risks of Using Cyber Proxies?” With Shawn W. Lonergan. Paper presented at the *Columbia University Symposium on Cyber Proxies, Saltzman Institute of War and Peace Studies*, July 2016.

Contributor, “Defeating the Islamic State: A Bottom-Up Approach.” *Center for a New American Security ISIS Study Group and Report*, June 2016.

Conference Organizer, *West Point’s Annual Senior Conference, National Security Reform for a New Era: Reassessing the National Security Act of 1947*, April 2016.

“The Logic of Coercion in Cyberspace.” With Shawn W. Lonergan. Paper presented at the *Symposium for Cyber Conflict Papers, School of International and Public Affairs, Columbia University*, March 2016.

“Cyber Soldiers of Fortune: The Twin Dilemmas for States Posed by Cyber Proxies.” With Shawn W. Lonergan. Paper presented at the *ISSS-ISAC Joint Annual Conference*, October 2015.

“Of Power and Proxies: A Theory of Influence.” Paper presented at the *International Studies Association Annual Convention*, February 2015.

*Bridging the Gap New Era Foreign Policy Conference*, Washington, D.C., March 2014.

*Summer Workshop on the Analysis of Military Operations and Strategy*, Cornell University, July 2011.

National Security Analysis and Intelligence Summer Seminar, *Office of the Director of National Intelligence*, Summer 2009.

“The Cost of Empty Threats: A Penny, Not a Pound.” With Jack Snyder. Paper presented at *Jackson Institute/MacMillan Center International Relations Workshop, Yale University*, 2009.

**Media Appearances**

“Irregular Warfare Podcast: Exploring Cyber Policy in the Department of Defense.” With Mieke Eoyang. *Modern War Institute Podcast*. June 16, 2023.

“Competition, Conflict, and Cyber.” With Maggie Smith. *Modern War Institute Podcast*. August 1, 2022.

“Cyber Takeaways from President Biden’s European Trip.” With Martin Howard. *Defense and Aerospace Report*. June 16, 2021.

“Great Power Cyber Party.” With Dmitri Alperovitch, Jason Healey, and Ryan Evans. *War on the Rocks Podcast*. April 19, 2021.

*WLJA-TV/ABC 7 News.* Interview on U.S. coercion and deterrence strategy. March 9, 2021.

*WLJA-TV/ABC 7 News.* Interview on the SolarWinds hack and a grand strategy of resilience. January 14, 2021.

“Shining a Light on the SolarWinds Hack.” With Brandon Valeriano and John Glaser. *Power Problems, Cato Institute, Podcast*. January 12, 2021.

*Conversation Six*, Podcast about the SolarWinds hack. With Jacquelyn Schneider. December 23, 2020.

*CBS News*. Interview on the SolarWinds hack. December 19, 2020.

“Is Cyber Half the Battle?” With Ben Buchanan, Fiona Cunningham, and Ryan Evans. *War on the Rocks Podcast*. May 12, 2020.

Quoted in *The Wall Street Journal, The Economist, CNN, Christian Science Monitor*, *Bloomberg, C4ISRNET*, *Fifth Domain, Defense News, Bloomberg Law*.

**Professional Activities and Service**

CyCon2023 Academic Review Committee, 2022-Present

Coach, West Point Cyber Policy Team, 2018-Present.

Member, Board of Directors, Cyber Conflict Studies Association, 2021-Present.

Term Member, Council on Foreign Relations, June 2016-Present.

Scholar in Residence, U.S. Fleet Cyber Command, 2019-2020

Analyst Exchange Program, New York City Cyber Command, 2019.

Judge, Cyber 9/12 Student Challenge.

Manuscript reviewer for *American Political Science Review, International Organization, International Security, Security Studies, American Journal of Political Science*, *International Studies Quarterly, Journal of Global Security Studies, International Affairs, Journal of Cybersecurity, European Journal of International Security, Political Science Quarterly, Cambridge University Press, Cornell University Press, RAND Corporation, War on the Rocks, Journal of Information Technology & Politics, Foreign Policy Analysis*.