The Kissinger Conference Johnson Center for the Study of American Diplomacy Jackson Institute for Global Affairs

Understanding Cyberwarfare and Artificial Intelligence

Featuring The Honorable Dr. Henry Kissinger Former Alphabet Chairman and Google CEO Eric Schmidt Former Secretary of Defense Ashton Carter

Friday, April 6, 2018

Today's Internet is far more than a system for sending mail or compiling information. Cyberspace is the backbone of our global commerce, communication and defense systems, and the critical infrastructure that powers our modern civilization. Yet despite the immense benefits that have resulted from this global connectivity, significant vulnerabilities persist and threats are on the rise, especially from the standpoint of American national security interests.

In the last decade alone, cybersecurity has moved rapidly to the forefront of international relations, posing multiple challenges to U.S. grand strategy: Russian cyberattacks on critical infrastructure in the United States and Ukraine; North Korea's cyberattack against Sony Pictures and sponsorship of global cybercrime; cyberweapons like Stuxnet, which attacked the Iranian nuclear enrichment program at Natanz; scandals associated with WikiLeaks and Edward Snowden's disclosures about the National Security Agency; and tensions in U.S.-China relations resulting from cyberespionage and theft of intellectual property.

Yet the future of cyberspace likely will prove even more transformative due to advances in artificial intelligence (AI). Algorithms used for cyber-operations will become increasingly capable of processing massive amounts of data, identifying and disguising subtle behavioral signatures, responding and adapting at scale, and discovering novel exploits. Artificial intelligence poses tremendous opportunities for economic growth and societal well-being, yet the potential threats also are extraordinary: autonomous weaponry, AI-augmented cyberwarfare, and strategic instability as nations race to deploy these unpredictable technologies.

This event will bring together a mix of academics, practitioners, and students, who will analyze the threats and opportunities associated with cyberwarfare and artificial intelligence. Particular attention will be paid to whether there exist any historical parallels and lessons learned from nuclear weapons, as this past summer marked the 60th anniversary of *Nuclear Weapons and Foreign Policy*, Dr. Kissinger's seminal work that examined the relationship between technology and strategy in the nuclear age.

How do we understand the current cybersecurity technical threat landscape, and what are the implications for U.S. national security? Can there be deterrence and mutually assured destruction in cyberspace, or do these Cold War concepts not transfer to the current environment? Are arms control and verification agreements possible with respect to cyberweapons or future threats from artificial intelligence? Can we establish international laws and norms to discourage the proliferation and use of the most destructive cyber technologies? How can policymakers devise effective strategies for artificial intelligence concerns that have not yet materialized or that we have not yet even envisioned?

Schedule

2:00pm Conference Welcome

Peter Salovey, President, Yale University

James Levinsohn, Director, Jackson Institute for Global

Affairs

Keynote Address: Threats and Opportunities: Our Cybersecurity and Artificial Intelligence Future

Speaker:

Eric Schmidt, former Chairman of Alphabet, Inc. and CEO of Google, Inc.

Location: Sprague Hall, 470 College St.

2:50-3:50pm Reactions from The Honorable Dr. Henry Kissinger and

Audience Discussion

3:50-4:10pm **Break**

4:15-5:30pm Cybersecurity Leadership and Strategy: Reflections from the Department of Defense

Moderator:

John Gaddis, Robert A. Lovett Professor of Military and Naval History, Yale University

Speaker:

The Honorable Ashton Carter, former Secretary of Defense and Director, Belfer Center for Science and International Affairs, Harvard Kennedy School

Location: Sprague Hall, 470 College St.